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HUNT'S

MERCHANTS' MAGAZINE.

FEBRUARY, 1847.

Art. I.—HISTORICAL SKETCH OF NAVIGATION AND NAVAL ARCHITECTURE.

NUMBER IV.—NEW SERIES.

The actual habits of our countrymen attach them to commerce. They will exercise it for themselves. Wars, then, must sometimes be our lot; and all the wise can do, is to make the best preparations we can. For either offence or defence, the sea is the field on which we should meet an European enemy. On that element, it is necessary we should possess power.—JEFFERSON.

HAVING completed the historical sketch of navigation, down to the ratification of the treaty of peace with Great Britain, in 1783, I regret that I am obliged to suspend the execution of the remainder until I can command more time to devote to that interesting subject, which I hope I shall be enabled to do in the course of the next year;—but, as naval architecture has been only partially noticed in the preceding letters, and as it now claims the intense consideration of this and all the other most powerful maritime nations, I have concluded to devote the two last of the present series to that important branch of nautical science. Still, I can only give a very succinct account of its origin and development, with a few suggestions on the expediency of establishing more exact principles for the attainment of such perfection in the form of ships as shall more certainly combine strength and stability with speed and capacity.

It is with great diffidence that I have ventured even to intimate possible improvements in construction; for it may be very justly presumed that such inquiries are not only beyond the domain of a mere private citizen, but exclusively pertain to those intelligent naval officers, architects, and ship-builders, who, from long experience, must be considered far better qualified to decide whether any beneficial change can be made in the system which now exists.

The form and size of vessels, and the manner of building them, have been as various as the purpose of their construction, and the nations and

ages in which they have been employed; and, if plans or models of them could be collected, they would form a most interesting and instructive exhibition: but, so imperfectly described are those of the most distinguished maritime empires of antiquity, that it is impossible to obtain even sufficient data, from the surviving works of Greek or Roman authors, to form a definite opinion of their dimensions, configuration, or appearance, when in a complete condition for commercial adventure or naval enterprise.

In civil architecture, the means are ample for becoming perfectly acquainted with its proficiency, as a science and an art—so far, at least, as it was applied to public structures; for not only have many of the magnificent edifices which were reared in Egypt, Greece, and Rome, during the memorable epochs when those mighty nations had reached the culmination point of prosperity, affluence, refinement, and power, escaped the ravages of conquest and time, but the treatise of Vitruvius has been transmitted across that broad and deep gulf of oblivion, in which the libraries of entire kingdoms have been overwhelmed. We are, therefore, enabled to fully comprehend the scientific principles on which they were projected, the materials employed, the manner in which the work was executed, and the imposing effect which must have been produced when all the architectural details—sculptures, paintings, and other sumptuous embellishments of the temples, pyramids, obelisks, triumphal arches and columns of Thebes, Tentyra, Athens, Samos, Hæstum, Agrigentum, and the “Eternal City”—were as perfect as genius, taste, science, art, and wealth, could render them; for sufficient portions of the largest and most magnificent have been perpetuated, to enable a modern architect to make accurate plans and elevations of them, in a restored condition; or to imitate an entire edifice, in such a perfect manner, as to rival the original in execution and elegance. But ships, having been built of such perishable material as wood, not a fragment remains, nor has a work on naval architecture, by any author of antiquity, descended to us; so that even the manner in which the banks of oars were arranged in the fleets of Alexandria, Greece, Carthage, and Rome, is a problem, which has not yet been satisfactorily explained.

The galleys were divided into two classes—the first being called *monocrota*, or those which had single rows of oars; and the other was distinguished by the term *polycrota*, which included such as had three, five, nine, or more tiers of oars. Those commonly used for naval expeditions were of various dimensions, and were designated as *biremes*, *triremes*, *quadriremes*, *quinqueremes*, *eunere*mes, and *tessararemes*, according to the number of banks of oars in each.

The various series of rowers were called by different names. The *Thalamitæ* were those who sat lowest; the *Zygitæ* sat in the cross-seats, and the *Thranitæ* in the highest.

The triremes carried two hundred men, of which one hundred and eighty were rowers, and the rest mariners; so that the Athenian fleet of one hundred and eighty triremes, which was commanded by Conon, in the victorious actions with the Spartan admiral, Pisander, must have contained thirty-six thousand men.

The quinqueremes carried four hundred and twenty men, three hundred of whom were rowers; and, as the Roman fleet, at Messina, consisted of three hundred and thirty galleys, and the Carthaginian, at Lelybeum, of three hundred and fifty, most of which were quinqueremes, the former must

have contained one hundred and thirty, and the other one hundred and fifty thousand men. Those vessels, then, were necessarily of a very large size; for, besides their crews, the war equipments and provisions requisite for such an immense number of mariners must have occupied a considerable space.

But there are accounts of ships of still more enormous dimensions, Hiero, king of Syracuse, caused one to be built, under the direction of Archimedes, the herald of mechanical science, which had twenty banks of oars. It was sent, as a present, to the sovereign of Egypt.

The largest vessel on record was constructed by Ptolemy Philopater. It had forty banks of oars. The length was four hundred and twenty-four feet, and the breadth fifty-eight feet. The height of the forecastle, from the water, was sixty feet. The longest oars were fifty-eight feet, and their handles were loaded with lead, to facilitate their motion. The crew consisted of four thousand four hundred men, of which four thousand were rowers. This leviathan of navigation was rather a royal yacht, than a ship of war.

Another ship, which was constructed for the voyages of the king and his court on the Nile, was three hundred and thirty feet long, and forty-five wide.

Pliny states,* that there never had been seen, navigating the seas, a ship more admirable than that which was constructed by order of the Emperor Caius Caligula, for transporting from Egypt the obelisk which was erected in the Circus of Mount Vaticanus, and the four huge blocks of the same kind of stone which formed the base on which that massive and lofty shaft of granite was reared. It brought, besides, one hundred and twenty thousand bushels of lentils. This ship was so long, that it occupied the greater portion of the left side of the harbor of Ostia, at the mouth of the Tiber, where it was sunk by the order of the Emperor Claudius, after three towers had been erected upon it of pozzuolana,† one of which was used as a pharos.

Galleyes, with nine banks of oars, were the largest class of ships, which were generally employed in naval warfare.

That those indescribable galleyes were very large, is to be inferred from various passages in the historical accounts of the maritime expeditions of the ancients; but the manner of arranging such a number of rowers as were employed, has occasioned much speculation among ingenious artisans, antiquarians, and writers on naval architecture;—still, no clear and satisfactory explanation has been given. On medals, and in a few basso-relievos, there are rude representations of war galleyes, in all of which the rowers are placed in lines over each other. On the coin of the Emperor Gordian is a galley, in which two banks of oars are conspicuous; and on Trajan's column, in Rome, there is, among the sculptures which embellish it, a galley, in which three banks of oars are placed obliquely, above each other.

If only four feet are allowed for each tier of oars, the sides of the vessel, above the water-line, even if only carrying nine rows, must have been thirty-six feet. It is, therefore, most probable that there was some mode

* Pliny's Nat. His, Book xvi., ch. 40.

† Volcanic ashes, used for forming concrete or beton, or what is called Roman and hydraulic cement.

of placing the rowers different from that of having distinct decks for each tier; and Meibomius, in his treatise, *De Fabrica Triremium*,* has suggested several, which are, however, more ingenious than conclusive.

For a long period after the revival of navigation, most of the vessels employed in long and dangerous voyages were small and fragile—and some of those which constituted the exploring squadrons of Columbus and Cabot were not decked, while the largest were much inferior to our coasting schooners; but after a commercial intercourse was opened with the American continent, by the Spanish, Portuguese, and English exploration, and with India, by the new route of De Gama, larger vessels were gradually substituted—and when the Venetians and Genoese became involved in war with Turkey, and finally with each other, for maritime supremacy, the navies of all these powers began to assume a far more formidable character, from the increased size of the vessels, and the number and weight of the guns they carried.

France and Spain, however, were the first nations that formed really efficient fleets, so far as relates to superiority of model, size, and construction; and the naval establishments for building and equipping ships, at Brest, Cherbourg, Toulon, Garthagena, and Ferrol, were long superior to those of any other country, and those of France still maintain that preëminence which was acquired during the reign of Louis XIV.

Holland had preceded both England and France in navigation, and the establishment of an imposing naval force; but the ships of war, as well as those in the merchant service, of all the nations which became most distinguished for maritime adventure, were generally clumsy in their form, being deep and broad, compared with their length, and high fore and aft above the water—rude in their construction, and sluggish in their movements, until within a very recent period. In fact, the largest class of the ships of the line seem to have been built to represent lofty castles upon the coast, rather than the majestic and storm-defying cars of Neptune, to bear the thunders of battle in triumph over the deep.

The aspirants for distinction in the art of ship-building have been numerous, but, with a few honorable exceptions, they have utterly failed in their efforts. Confident of success, they zealously labored to produce such a change in the contour of the frame as would effectually obviate its notorious defects, and establish a form by which all the desirable qualities would be obtained, both for the purposes of commerce and war; but, unfortunately, the mode which was generally adopted rendered success impossible, for it was founded on assumptions which were as unphilosophical as they were destitute of the verification of facts.

There was a grave manner of discussing this important subject, which was regarded as recondite by those who were zealous rivals in the inquiry, because it was conducted in a manner which was as indefinite in terms as it was incomprehensible in theory. The talismanic phrases of *dead rise, flat floor, clean run, quick shean, lean aft, full bows, long fore foot, bearings, rake of stem and stern posts*, and many others, which custom had introduced, seemed to have been invested with apparent significance; but as to the effect of which, in all their possible modes of practical combination, whether for advantage or injury, there were as many opinions as competitors for the prize of excellence.

* That work was published in Amsterdam, towards the close of the seventeenth century.

The prospect of success, under such circumstances, was, therefore, not only distant, but improbable—for the inadequate process by which the required result must be obtained, most commonly consisted in shaping blocks of wood into some imagined form of perfection, for the hull of a ship, but without an attempted application of the laws of geometry, hydraulics or mechanics. It was, in fact, rather a kind of physical guess-work, than a methodical effort to arrive at a correct theory by the only certain method—that of analysis; and not having a single element for enabling them to reach a definite conclusion, either by exact experiment, demonstration, or induction, vessels built on those incongruous and ever-varying plans were often worse, and generally no better, than those which had preceded them, in construction. If, now and then, one out of the many hundred in the merchant or naval service proved to be more manageable, or, as the term is, "*worked well*," was safer in all kinds of weather, or remarkable for sailing, it was the merest accident—and if attempted to be copied, it was invariably a failure, which was shrewdly attributed to the "stepping of the masts," the "improper trim," the "cut of the sails," and many other plausible causes; when, in reality, the whole difficulty arose from the new ship not being in form exactly like that which had been adopted as the model; nor was it possible that it could be, there being no rule, principle, or mode of producing a similitude, except by the eye of the builder—as the actual dimensions, and varying external outlines, were as unmeasurable as the statuary group of the Laocoon, for all the purposes of exact imitation, since none of the longitudinal, transverse, horizontal, or vertical sections or lines, were portions of any geometrical figure, but irregular involutions, which had been developed by whim or chance, and therefore could not be transferred to another form with that precision which was indispensable for success.

The first work in which science was applied to the construction of ships, was Paul Hoste's "*Theorie de la Construction des Vaisseaux*," which was published at Lyons, in 1696. Prior to the appearance of that interesting treatise, experience and imperfect observation were the only guides of the ship-builder. The torch of geometry had not illumined his path, nor was the theory of mechanics applied to his daily labors. Ships were built by absurd traditionary rules, which, for a long succession of centuries, had been esteemed as infalliable, and no one ventured to question their accuracy or origin.

After a dreary night of darkness, Bernouville, Bouguer and Euler arose, who joined to the highest theoretical attainments clear and definite conceptions of the practical application of analysis to some of the most important elements of naval architecture. In the hands of Euler, in particular, the subject first assumed a regular and systematic form. Since that period, it has been enriched by the labors of Clairbois and Chapman, of Sweden.

The precepts and system of ship-building having been so ingloriously influenced by caprice, prejudice, and chance, the rigid and scrutinizing spirit of geometry calls for a more precise application of its principles to that subject.

France wisely availed herself of the advantages which were thus to be derived, and called to her aid the genius and science of the nation. By prizes, public rewards, and honorable distinctions, the geometers were invited to consider all the great problems connected with ship-building,

and to transfuse into the mechanical operations of her dock-yards all that the most enlightened theories could teach. It can readily be conceived what advantages must result to an art, when the attention of such a mind as D'Alembert's was directed to it.

After the discovery of the use of steam as a motive power in the propulsion of vessels, and more especially since its recent extended application to packet, mail, merchant, and war ships, it has become a subject of the deepest interest, and numerous experiments have been made, to ascertain in what manner the greatest speed can be acquired, in all kinds of vessels, at any cost—or their capacities enlarged for all the purposes in which they may be employed, without a diminution of velocity, or a proportionate augmentation of expense in construction, sails, rigging, engines, fuel, and crews.

In mail and passenger steamers, speed is very desirable; but to obtain increased velocity with capacity for freight and armament, in merchant and armed ships, in the manner proposed, is of still greater moment; and while the problem involves serious difficulties, it is, nevertheless, confidently believed that it can be solved, if the requisite inquiries and experiments are conducted on purely scientific principles.

A form of the hull, then, which shall combine capacity and stability, with a contour that is the best adapted for being most easily moved through the water, by any power, must be the basis on which all investigations should be founded. It was on that assumption, that inquiries were instituted in the dock-yards of France during the reign of Louis XIV.; and with such success have they been prosecuted ever since, that the various classes of sailing ships, built in that kingdom, have been considered so much superior to those of all other nations, that the navies of Spain, England, Russia, and the United States, have been notoriously improved, so far as they have been adopted as models for construction. Still, a form has not yet been ascertained, which is so perfect as to fulfil all the conditions required; for it must be predicated on principles so correct in scientific theory, and so universal in their application, that they can be infallibly adopted in the construction of every kind of vessel, from a jolly-boat to a ship of the line.

To ascertain the form of a solid body, which would oppose the least resistance in passing through a fluid, experiments were instituted in England, under the direction of the "Society for the Improvement of Naval Architecture," which was established in 1791, in consequence of the deep interest which the Duke of Clarence* took in that subject, as a naval officer, and who was therefore selected as the president.

Greenland Dock was designated, as the most convenient piece of still water, near London, for conducting the experiments, where four hundred feet run and eleven feet depth was obtained. Colonel Beaufoy was appointed to superintend the experiments, and was assisted by James Scott, secretary of the society, and Captain John Leord of the navy. The colonel was aided by his highly accomplished lady in the calculations, and she contributed no inconsiderable share to the progress and success of his labors.

Colonel Beaufoy's attention was first drawn to this interesting subject, when but fifteen years of age, in consequence of hearing it stated, one

* The successor of George IV. to the British throne, under the title of William IV.

evening, at his father's house, by an eminent mathematician, as an axiom generally received by naval officers and mechanics, that "a cone drawn through the water, with its base forward, experienced less resistance from a fluid, than with its apex in front." This paradoxical assumption excited young Beaufoy's curiosity, and before he went to bed, with the assistance of a neighboring turner to prepare him an elongated cone, he ascertained the fallacy of the alleged opinion, by making the experiment in one of the large coolers of his father's brew-house.

In a few years after its organization, the society sunk into decay from the want of funds; but the colonel continued his experiments for ten years, at his own expense, and completed his tables, with appropriate drawings of the apparatus and solids employed, in two manuscript folio volumes.

Simultaneously, but unknown to either party, experiments were prosecuted in Sweden, for the solution of the same questions, under the sanction of the iron-masters of Stockholm, by Lagerhjelm, Forselles, and Kallsterias, at Fablu mine, from the year 1812 to 1816.

In the year 1819, Assesson Lagerhjelm sent Colonel Beaufoy six copies of the first volume of the Swedish experiments, which were distributed among the public departments of England; but no notice was taken by any of them of the work, beyond a formal acknowledgment of its receipt. The colonel then attempted to procure a translation, at his own expense; but owing to the want of mathematical knowledge on the part of the translator, their version was as unintelligible to an Englishman as the originable language. Thus circumstanced, he saw just enough to excite, without gratifying his curiosity, until fortunately Lagerhjelm visited England in 1825, when the colonel was enabled to get a glimpse of the results of the labors of his Swedish coadjutors. Soon after the return of Lagerhjelm, he sent over copies of his second volume of experiments; but owing to the same cause, they were equally as unavailing as the former.

Colonel Beaufoy died in 1827, and having bequeathed his manuscripts to his eldest son, he determined to procure correct translations of Lagerhjelm's work, and fulfil his father's wishes, by publishing the whole Swedish and English experiments together. For accomplishing that object, he employed a young clergyman, by the name of Elijah Smith, to undertake the task of translator and editor.

In the spring of 1832, Mr. Smith had succeeded in translating the first volume of the Swedish work, when he proceeded to Stockholm to lay the translation before the learned author, who, being an excellent English scholar, corrected it; and then stated the object of Mr. Smith's voyage to the Society of Iron-Masters, who most liberally offered the use of the copper-plates belonging to the original work, to facilitate, as well as to diminish the expense of the publication of the translation.

In the summer, Mr. Smith had completed the translation of the second volume of Swedish experiments, and was to have proceeded in the translation of the "*Tentamen Theoriæ Resistentiæ Fluidorum Constituendæ*," written by Lagerhjelm. The work was to have consisted of three volumes; the first containing Colonel Beaufoy's experiments upon "the resistance of solids moving through fluids;" the second, the translation of the first and second volumes of the Swedish hydraulic experiments, and also the work on the resistance of fluids, by Lagerhjelm; and the third, Colonel Beaufoy's miscellaneous papers, which were numerous, on as-

tronomy, naval architecture, air, magnetism, meteorology, the tides, trigonometry, sound, and other scientific subjects.

The united experiments of the English and Swedish philosophers cost over \$240,000.

In the midst of his labors for completing the work, Mr. Smith was appointed to the chaplaincy of the Russian factory at Archangel; and the task of editing it devolved on the liberal and energetic son of the colonel, who seemed to have inherited, and united, with the most profound filial respect, the generous and enlightened spirit of his learned and enterprising father.

After Mr. Smith left England, the son found that many errors had been committed, in the original manuscripts, which rendered it necessary that a minute and careful examination should be made of the whole work; the first volume, therefore, was not published until 1834.

In the preface, the son remarks, that "as Colonel Beaufoy's scientific labors were given to the public, so likewise are these volumes intended for gratuitous distribution."*

A more appropriate and magnificent monument could not have been reared, by filial gratitude and affection, than this superb work; of which, fifteen hundred and fifty copies have been published, at an expense of nearly \$20,000.

NEARCHUS.

ART. II.—TRADE AND COMMERCE OF NORWAY.

In a previous number of the *Merchants' Magazine*,† we published an elaborate account of the trade, commerce, and resources of Sweden, derived chiefly from the valuable parliamentary papers of JOHN MACGREGOR, Esq., one of the Joint Secretaries of the British Board of Trade. The following statement, respecting the trade and navigation of Norway, read before the Statistical Section of the British Association at Cambridge, in June, 1845, by RICHARD VALPY, Esq., has been collected chiefly from an interesting return made to the English government by J. R. Crowe, Esq., Her Britannic Majesty's Consul-General at Hammerfest; and, as the subject was considered a desirable one to bring before the association referred to, Mr. Valpy, by permission, abstracted from the return such particulars as appeared the most likely to render the paper acceptable, in a commercial point of view.

The exports and imports are separately considered, and our attention is, in the first place, directed to the export trade of Norway, which chiefly consists of the produce of her forests, fisheries, and mines. The timber trade is principally carried on in the southern provinces of Agershuus and Christiansand, and to a less extent in the province of Drontheim. Deals, principally in twelve-foot lengths, barks, round and square, and timber of various dimensions for building materials, constitute the articles of the trade. The most extensive forests are in the interior, and chiefly on property belonging to peasants. No regulations for the management of the

* I was indebted to the sons of the late Doctor Bowditch, for an opportunity of examining the work published by Colonel Beaufoy's son, who had presented it to their illustrious father.

† See *Merchants' Magazine* for September, 1844, Vol. XI, p. 203-216.

forests exist in Norway; each proprietor cuts as much wood as he thinks proper. While the country was under the Danish dynasty, various attempts were made by that government to introduce their own system of control; and for a short period a Forest or Wood Department was established, with officers to regulate the felling—but it was soon abolished, and the quantity and quality to be felled was left to the discretion of the proprietors. Much has been said and written about the decrease of the woods, but it is now generally admitted, by those who are conversant with the subject, that the reproduction is as rapid as the consumption, and that no material decline is to be anticipated. Autumn and winter are the periods of the year when the timber is felled; and, as soon as the snow is sufficiently deep to admit of its being transported, it is conveyed to the banks of the nearest river, to await the freshets in the spring, which carry it either to the saw-mills or sea-coast, as may be required. The timber is invariably received on the banks of the river by the timber merchants, who mark what they purchase: it then remains on the banks, on account and at the risk of the purchasers, until it is transported by the freshets to the place of destination. As soon as the rivers begin to increase, proper people are sent up by the purchaser to clear the banks of the timber, and to follow its descent in order to release any that may chance to lodge on the way. Whenever lakes intervene, as is often the case, the timber is then collected into rafts, and conducted across to the opposite outlet. It is there cast adrift, and again carried along by the stream, until it reaches the place where it is to be formed into shapes, suitable to the market for which it may be intended. To Holland, where the Norway timber is chiefly in demand for piles, it is sent round. For England, on the contrary, where the demand is exclusively for building materials, with the exception of the timber required in Cornwall for the use of the mines, the balks are always squared. The principal markets for deals are England, Ireland, France, and Holland; and quantities of an inferior description are sent to Denmark.

For some years, this branch of trade has been gradually changing its course. Formerly, England was looked upon as the chief and most certain market; and, in return, England retained almost the exclusive trade in manufactures, as but few manufactured goods found their way into the country from other places. With France but little intercourse existed, and scarcely any with the German States.

From 1809, however, the period when the English protective system in favor of Canada came into operation, the decline of this trade with England commenced. Owing to the dimensions of the Norwegian timber and deals, the change pressed more heavily on Norway than on any of the neighboring States, and such property actually fell in value upwards of 50 per cent. If not entirely and immediately thrown out of the market, the Norwegian dealer labored under so many disadvantages that ultimately he was driven to seek more favorable outlets for his produce, and these he found in France, where the custom of substituting boarded for stone or brick floors was gradually gaining ground.

As the exports to England fell off, the use of British manufactures decreased in a similar proportion. Hamburg and the German States became new markets for this description of Norwegian produce, and German manufactures superseded, in a great measure, those of England.

The following table exhibits the quantities of timber and deals exported to various countries in each year, from 1835 to 1841:—

Years.	Great Britain.	France.	Holland.	Belgium.	Denmark.	Hanov'r.	Other countries.	Total.
1835.. loads	135,987	156,842	160,097	5,317	81,733	16,012	4,441	560,430
1836	140,783	.....	.....	.....	.....	.....	.....	582,047
1837	141,567	.....	.....	.....	.....	.....	.....	571,105
1838	160,357	179,885	162,168	9,160	69,375	18,522	4,459	608,916
1839	151,250	.....	.....	.....	.....	.....	.....	680,517
1840	152,350	.....	.....	.....	.....	.....	.....	666,497
1841	159,602	187,497	177,135	5,480	109,400	21,622	6,132	666,868

NOTE.—The quantities exported to the several countries in 1836, 1837, 1839, and 1840, are not specified, with the exception of England.

Thus, in 1835, Holland took 28.56 per cent; France, 27.99; England, 24.27; Denmark, 14.59; and other countries 4.59 per cent of the total quantities exported. In 1838, France took 29.79 per cent; Holland, 26.85; England 26.55; Denmark, 11.49; and other countries 5.32 per cent;—and in 1841, France took 28.11 per cent; Holland, 26.55; England, 23.93; Denmark, 16.44; and other countries 4.97 per cent of the total exports of timber.

The annual average quantities of timber exported in the seven years from 1835 to 1841, were 618,769 loads of 50 cubic feet; which, if we include fire-wood, and articles of minor importance, such as hoops, &c., may be estimated to be worth, at the place of shipment, rather more than two millions of sp. d., or £435,000.

The fishing trade is next in importance to the timber trade, and that branch of the industry of Norway forms the chief occupation of the inhabitants of the towns on the west coast, from the Haze to the frontiers at the entrance of the White Sea; Bergen, Drontheim, Christiansand, Tromsøe, and Hammerfest, being the principal of such towns.

The exports consist of stock-fish, round and split; clip-fish, or bacca-lau; salted cod and halibut, in barrels and in bulk; cod-roses, salted; herrings, salted or pickled; liver and shark oil, and live lobsters. The stock-fish is prepared by the fisherman in the neighborhood of the fishing-grounds, merely by drying in the open air, without salt. It is then conveyed by him to the place of shipment, and sold to the merchant. The fish-roses are prepared in the same manner by the fisherman; but the preparation of the clip-fish, (which is similar to that cured at Newfoundland,) and the pickling of the herrings, is solely at the risk of the merchant, who makes his purchases as the fish are landed, employing his own people in the ulterior preparations. The markets for the stock-fish are the Italian States, Spain, Portugal, France, and Belgium. Clip-fish are chiefly sent to Bilbao; the liver-oil to the Hanse Towns, Holland, and Belgium; the cod-roses exclusively to France, where they are used as ground bait, chiefly in the bay of Biscay. Sweden, Russia, and the Prussian States, take the herrings in a pickled or salted state, in barrels; and Denmark is also a market for them in smaller quantities. The stock-fish and clip-fish form the chief proportion of the fish trade; the herrings are second in importance; the raw and salted cod and halibut next; and lastly, the live lobsters.

The progress of the fisheries, since the year 1814, is shown in the next table, where the annual average quantities of fish exported are given in quinquennial periods, from 1815 to 1841:—

Periods.	Dried stock-fish. Tons.	Clip-fish, or baccalau. Tons.	Herrings, salted. Barrels.	Cod-roses. Barrels.	Cod liver and shark oils. Barrels.	Live lobsters. No.
1815 to 1819....	9,767	1,836	*.....	8,545	19,193	*.....
1820 1824....	12,851	3,805	*.....	not known	27,265	*.....
1825 1829....	19,512	7,454	*.....	22,146	40,468	*.....
1830 1834....	20,176	8,029	*.....	21,148	25,719	*.....
1835 1839....	18,959	12,337	467,823	22,484	37,063	681,009
1840 1841....	14,196	11,285	608,086	20,217	41,715	562,272

In addition to the exports here specified, raw fish are exported to some extent, but in what quantities cannot be ascertained.

Although considerable fluctuations appear in the quantities of fish exported at the different periods specified in the above table, which may, in a great measure, be attributed to the varying nature of the fishing trade, a growing increase has taken place since the year 1814.

The average of the five years from 1815 to 1819, in comparison with the average of the two years 1840 and 1841, exhibits the following results relating to the latter average:—

Dried stock-fish.....	+ 45 per cent.
Clip-fish, or baccalau.....	+514 "
Herrings, salted, (1840-41, with 1835-39.).....	+ 30 "
Cod-roses.....	+147 "
Cod-liver, and shark oils.....	+117 "
Live lobsters, (1835-39, with 1840-41.).....	— 23 "

and in comparing the average of the fifteen years from 1815 to 1829 with that of the twelve years from 1830 to 1831, the results are as follows, in regard to the latter average:—

Dried stock-fish.....	+ 27 per cent.
Clip fish, or baccalau.....	+142 "
Herrings, salted, (1835-39, with 1840-41.).....	+ 30 "
Cod roses, (1815-19 and 1825-29, with 1830 to 1841.).....	+ 39 "
Cod-liver, and shark oils.....	+ 20 "
Live lobsters, (1835-39, with 1840-41.).....	— 23 "

So that all branches of the fisheries exhibit a very considerable progress since the year 1814, with the exception of lobsters, which have materially decreased in the last of the two periods for which we have figures.

The cod fisheries is carried on, with little variation, along the whole coast from Bergen to the White Sea; but the chief seat of it is near the Loffoden Islands, in the neighborhood of the much, but undeservedly, dreaded Maelstrom; and in the months of February and March upwards of 20,000 men are occasionally engaged in this fishery, which, on the coast of Finmark, also gives employment to from 12,000 to 15,000 men during the summer, and attracts from 300 to 400 Russian vessels annually to its coast. It is to be observed that the cod-liver does not always bear the same relative proportion to the fish. There is a very striking difference occasionally in the quantity of oil the liver yields; for six hundred livers may be required one year to make a barrel of oil, when two hundred are sufficient at another period.

The most important fishery is the herring; and, although this is more fluctuating than any other branch of the fishing trade, of late it has been successful for a series of years. Like the cod, the herring fishery is car-

* Not specified for these periods.

ried on at two periods of the year, in summer and winter. The chief locality of the latter is along the coast from Macegal to Bergen, and of the former from Drontheim to Hammerfest. At one time, the winter herrings had abandoned the Norwegian coast; but, since 1808, they have been regular in their annual visit.

The lobster fishery is now scarcely of sufficient importance to merit a separate notice. For the last three years, since 1841, the annual average exports have not much exceeded 500,000; and, as the consumption in the country has not increased, it is evident that this branch of the fisheries is on the decline. It is pursued along the coast from the Swedish frontiers to Christiansand, and the produce is almost exclusively reserved for the London market; lobster smacks regularly running between the Norway coast and London to receive them.

For the last seven years, since 1837, the annual average quantities of smoked salmon exported have only been 5,455 lbs.; and of this, not above 200 lbs. have been sent annually to England, the chief market being Denmark.

In Part XII., p. 112, of Mr. Macgregor's Commercial Tariff, it is stated that for several years salmon formed an article of export, but of late years the catch has not exceeded the demand for home consumption. The decrease in this valuable article has been attributed to the swarms of sharks that have, of late years, retained possession of the banks lying off the coasts. This fact was only accidentally discovered in 1841, by the circumstance of two small vessels being fitted out as an experiment to try the bank fishery for cod, which had not been previously attempted; when, instead of finding the object they were in search of, these voracious animals were met with. In 1842, eight vessels were fitted out from Hammerfest, expressly for the purpose of shark fishing, and no less than 20,000 were taken, without any apparent diminution of their number. The shark oil produced was about 1,000 barrels. The total value of these fisheries is estimated at more than 3,000,000 specie dollars, or £653,000, annually.

The metal trade is of a limited nature, although full seven-eighths of the produce of the copper and cobalt mines is exported: the latter in the shape of smalts and oxide of cobalt; the former in cake, sheet, and rosette copper. Equally as much iron, in various shapes, is imported into the country as is exported. Many of the iron mines cannot be worked to advantage beyond what the local consumption may call for.

The following tables show the quantity of metals, and minerals of metals, exported in each of the years 1835 and 1841, and the annual average thereof during the seven years from 1835 to 1841:—

Years.	TABLE I.				
	Chrome iron. lbs. av.	Chr. salt. lbs.	Cobalt ore. lbs.	Cob. smalts. lbs.	Cob. oxide. lbs.
1835.....	.....	2,520	.....	88,480*	255,920
1838.....	505,120	.....	.....	.....	.....
1841.....	884,389	154,378	33,660	123,056	197,924
Av'ge 1835 to '41, $\left\{ \begin{array}{l} 38 \\ \text{to} \\ 40 \end{array} \right\}$	873,727	60,189	.....	1,016,715	259,841
Per centage proport'ns of the average com- pared with 1835....	+73 p.c.	+2,250 p.c.	.....	+1,050 p.c.	+1½ p.c.

* The quantities of cobalt smalts exported in 1835 and 1841 only average about one-tenth of the same for each of the intermediate years.

TABLE II.

Years.	COPPER.			IRON.		
	Old. lbs.	Sheet. lbs.	In blocks. lbs.	Ore. lbs.	Wrought. tons.	Cast. tons.
1835.....	.....	5,280	1,044,120	1,534	2,155	206
1841.....	4,850	75,879	1,233,931	.....	2,184	105
Av'ge 1835 to '41.	.....	44,334	1,189,784	1,272	2,410	126
Pr. centage prop. of the average com- pared with '35.. }	....	+740 p.c.	+14 p.c.	-21 p.c.	+12 p.c.	+63 p.c.

The results here set forth plainly prove that the exports of the mineral resources of Norway have been, with but few exceptions, materially augmented of late years. Of the total quantities exported in the year 1841, the chief proportion was sent to Great Britain. The total value of metals produced in Norway, including the produce of the Kongsberg silver mines, which amounts to full one-fifth of the whole, is estimated at about 1,000,000 specie dollars, or £217,500.

We will now briefly notice the fur trade, although it may be looked upon more in the light of a transit trade, than as part of the national industry. The production of the country has dwindled down to the catch of a few thousand fox-skins, a few hundred bear, wolf, otter, and seal-skins, with some of the smaller animals, annually. These are all sent to Finmark for barter with the Russians, with whom a lively traffic in these article is carried on; chiefly, however, with otter and fox-skins, purchased in London at the sales of the Hudson's Bay Company. From London the skins are first sent to Hamburg, where they are purchased by the Norwegian trader, who ships them to Finmark, whence the greater part of the otter and fox-skins, which form nineteen-twentieths of the fur trade, are conveyed to Moscow, and there sold to the caravan traders. The skins are ultimately taken to Kēachta, to be bartered with the Chinese for tea. The value of these furs, including others of minor importance, does not exceed 100,000 specie dollars annually, or £21,700.

The value of the total exports may therefore be estimated as follows:—

Timber.....	about	2,000,000	specie dollars, or	£435,000
Produce of the fisheries.....		3,000,000	"	653,000
" mines.....		1,000,000	"	217,500
Fur.....		100,000	"	21,700
		6,100,000		1,327,200
Freight by Norwegian vessels....		1,500,000	"	326,000
Total.....		7,600,000	"	£1,653,200

The value of the freights is added to the estimated value of the exports, as the great bulk of the articles exported are conveyed by Norwegian shipping; consequently, the advantage to that extent remains solely with the native trader and ship-owner. From the official returns, it has been estimated that the gross amount of freights earned by the transport of native produce is fully equal to 1,660,000 specie dollars, or £362,200.

We will now proceed to consider the import trade of Norway, and it will be seen that the principal articles imported are salt, grain, colonial produce, manufactures, tea, sugar, brandies, wines, provisions, hemp, flax, cotton, wool, glass, and earthen-ware.

Salt is received as return cargoes from Spain, Portugal, France, and Sicily, and occasionally from Liverpool. Grain comes from Denmark, Prussia, Russia, and Sweden.

Colonial produce is sent from Hamburg, Altona, Holland, France, Denmark, and Great Britain.

Provisions are imported from Denmark, Russia, Hanover, and Holland; and raw cotton, cotton twist, manufactured goods, glass, serge, stuffs, and earthen ware, are supplied by Hamburg, Altona, and Great Britain.

The following short abstract from Mr. Growe's tables of the articles imported into Norway from the several countries, may perhaps be some guide to the extent and nature of the different branches of the Norwegian import trade.

The trade of Denmark with Norway was stripped of its magnitude and importance when the two countries were separated by the Congress of Vienna, and Denmark was consequently deprived of many commercial advantages which she had formerly enjoyed in her relations with Norway.

The trade in grain, provisions, and colonial produce, was exclusively in the hands of the Danes; and the merchants of Copenhagen* were in fact the bankers of Norway, and as such controlled nearly the whole of her commerce—not only that which related to Denmark, but also the trade with the rest of Europe. The Exchange at Copenhagen was the mart where most of the commercial affairs of Norway were arranged.

The simple interchange of their superfluous produce now forms the trade between the two countries, but it is yet of an extent to be of importance to Denmark.

Instead of inserting in this paper the entire tables of the import trade with the several countries, we shall only abstract the quantities of the most important articles.

The imports from Denmark, in each of the years 1835, 1838, and 1841 appear in the next table.

By this table, it will be seen that the trade of Denmark, in these periods, has, for the most parts, suffered a gradual decline. Grain, the demand for which fluctuates, of course, with Norwegian harvests and provisions, forms the most important features of the trade, and appears to be likewise the most prosperous.

According to the most careful official estimate, the imports are valued at rather more than 1,500,000 specie dollars, or £326,000.

Articles.	1835.	1838.	1841.
Coffee.....lbs.	97,630	77,413	64,706
Cordage.....	19,082	15,474	18,273
Flax.....	20,813	8,786	7,273
Hemp.....	25,260	4,340	1,190
Grain—Barley.....qrs.	191,387	230,272	217,501
Wheat and flour.....	18,049	10,437	7,453
Rye.....	93,994	67,241	85,171
Malt.....	13,597	13,869	16,362
Leather.....lbs.	285,822	97,230	111,908
Linens.....	91,636	87,947	32,646
Provisions, viz:—Cheese.....	244,913	316,457	233,929
Butter.....	932,561	1,465,949	1,918,511
Pork.....	410,126	528,546	639,702
Beef.....	358,262	391,494	358,188
Tallow.....	64,582	62,120	87,108
Wool.....	.....	71,484	139,623
Woollens.....	77,929	37,633	41,702

In the same ratio as the intercourse with Denmark has declined, has the trade with Sweden increased, and a lively intercourse by sea and land has sprung up.

The quantities of the principal articles imported by sea from Sweden, in each of the years 1835, '38, and '41, are given in the following table:—

Articles.	1835.	1838.	1841.
Alum.....lbs.	30,961	8,135	30,661
Bricks.....No.	381,787	458,629	788,459
Iron and steel.....tons	322	1,019	717
Leather.....lbs.	76,761	5,965	629
Paper.....	14,228	45,430	47,669
Staves.....sp. d.	59,840	75,894	95,550
Tobacco.....lbs.	157,257	105,435	88,050
Tar.....bbls.	2,761	3,134	4,706
Oats.....qrs.	5,241	76	9,348
Butter.....lbs.	80,675	116,776	117,905
Linens.....	95,007	105,516	98,036
Woollens.....	11,453	16,233	12,280

No particular results are to be deduced from this statement, and it affords but an imperfect idea of the commercial intercourse that exists between Sweden and Norway, as quantities of manufactured and other goods find their way by land, and of which no returns can be obtained.

The value of the imports that pass through the customs does not exceed 1,000,000 specie dollars, or £217,500.

The trade between Norway and Russia is of a two-fold character: the first, with the Baltic, is simple, and similar to that carried on between Norway and Prussia; the second, with the northern provinces of Norway, the White Sea, and Finmark, is of a more complicated and peculiar character. These places are mutually dependent on each other for the sale of the superfluous produce of the fisheries, and for the most important articles of food. It is also of great political importance to Russia, and peculiar privileges and immunities are granted by that power to that particular trade; and, by virtue of treaties with Sweden and Norway, Russia has secured to herself exclusive immunities, not enjoyed by other nations.

No correct return of the extent of the trade with Russia can be given, as the Russians are not bound to unload at the established ports, like other foreigners. The following figures are taken from a table compiled from official returns of imports, but it may be safely assumed that not one-half of the Russian produce imported appears in these returns:—

Articles.	1835.	1838.	1841.
Candles, tallow.....lbs.	40,230	23,756	48,142
Feathers.....	59,490	15,777	61,177
Flax-seed.....bbls.	905	3,169	1,130
Rye and rye meal.....qrs.	17,860	66,665	19,014
Hemp.....lbs.	2,606,520	2,037,719	3,024,017
Hides.....	137,151	56,047	181,081
Linen.....	487,161	269,049	440,739
Oakum.....	24,160	8,398	46,142
Oil, cod and liver.....qts.	15,488	32,704	62,268
Tallow.....lbs.	3,673	1,556	35,081
Tar.....bbls.	213	312	109
Twine.....lbs.	1,280	320	7,520
Rope.....	155,784	112,829	253,434

As it has been before remarked, these figures are, in all probability, far

from exhibiting the extent of the actual imports from Russia. They are, however, given here as some guide to the nature of the transactions.

The trade between Norway and Prussia is confined to a few articles of mutual necessity. The following were the principal imports in each of the years 1835, '38, and '41 :—

Articles.	1835.	1838.	1841.
Flax.....lbs.	10,531	6,520	18,384
Barley.....qrs.	11,488	46,440	9,195
Malt.....	2,411	7,920	4,950
Rye.....	36,946	98,340	89,672
Hemp.....lbs.	17,193	1,856	17,369
Oil—hemp, &c.....qts.	.....	19,184	23,692
Provisions.....lbs.	2,427	28,510	25,891
Soap.....	6,780	7,965	25,326

A more extensive import trade is carried on by Norway with Altona, Hamburgh, and the German States, than with any other country. No less than 150 articles are specified in the table given by Mr. Consul Crowe; and of the greater part of these, large quantities were imported. The following table is a short abstract of the most prominent imports, in 1835, '38, and '41 :—

Articles.	1835.	1838.	1841.
Almonds.....lbs.	36,342	47,964	39,086
Alum.....	17,865	9,849	13,121
Aniseed, &c.....	126,976	110,782	84,744
Bark, medical.....	11,258	11,572	12,899
Brimstone.....	19,429	26,956	20,189
Bricks.....No.	430,498	398,479	888,576
Cotton wool.....lbs.	35,962	50,332	57,348
twist.....	57,392	96,977	120,865
manufactures.....	214,562	210,513	394,103
Coffee.....	1,694,229	2,242,387	3,609,812
Dye-woods.....	492,083	215,313	257,299
Fruit, dried.....	292,603	355,049	359,791
Earthen-ware.....	37,112	22,081	20,935
Furs.....skins	21,047	26,923	35,817
Glass.....lbs.	63,929	115,771	127,201
Gums.....	15,570	10,494	12,973
Barley.....qrs.	9,653	8,827	2,452
Rye.....	10,875	7,209	6,082
Hides.....lbs.	56,104	123,693	197,558
Hops.....	80,795	105,287	93,123
Copperas.....	42,297	39,715	42,844
Indigo.....	10,793	9,467	17,229
Iron manufactures.....	92,569	95,990	118,697
Linens.....	147,021	149,074	214,804
Molasses.....	334,008	514,320	493,915
Paints and colors.....	67,288	88,091	102,162
Paper.....	37,156	139,394	34,633
Potash.....	12,703	18,014	16,027
Rosin.....	24,759	33,085	39,469
Salt.....tons	110	115	100
Saltpetre.....lbs.	12,101	26,379	25,459
Silks.....	8,261	19,457	10,969
Soap.....	120,364	100,191	319,949
Spices.....	54,146	69,323	65,301
Starch.....	22,954	29,415	36,120
Sago.....	28,187	32,993	36,048
Sugar, raw.....	1,969,390	1,574,203	2,027,894
refined.....	.....	1,307,142	1,561,882

Articles.	1835.	1838.	1841.
Tea.....lba.	54,354	55,116	49,023
Tobacco.....	1,217,638	1,075,699	1,709,551
Rice.....	287,103	331,494	374,075
Wine.....qts.	134,172	136,521	140,303
Woollen yarn.....lba.	9,683	2,850	3,550
Woollens.....	186,495	211,080	275,118
Zinc.....	7,530	22,915	18,132

A glance at the preceding table will at once establish the fact of the importance and prosperous condition of trade between Altona and Hamburgh and Norway. A great and continual increase has taken place since the year 1835, in the imports of the following articles:—Bricks, cotton wool, and cotton manufactures, colonial produce, (particularly coffee,) glass, hard-ware, linens, silks, soap, tobacco, rice, and woollens.

The value of the imports is not given.

The quantities of the principal articles imported into Norway from Holland, in 1835, '38, and '41, appear in the next table:—

Articles.	1835.	1838.	1841.
Bricks.....No.	1,556,443	919,551	1,394,235
Cotton wool.....lba.	.....	13,516	38,865
Coffee.....	221,992	69,529	81,654
Dye-woods.....	42,203	16,524	20,620
Earthenware.....	99,833	55,634	77,192
Flax.....	313,981	182,158	316,727
Glass.....	11,893	18,657	49,211
Hemp.....	34,355	16,287	9,420
Hoops.....No.	4,695,492	1,326,025	6,073,584
Iron, cast.....lba.	373,179	252,365	354,637
Leather.....	32,053	17,443	49,465
Molasses.....	15,101	7,464	33,502
Oils.....qts.	122,163	112,769	157,853
Paints.....lba.	62,417	60,910	60,543
Cheese.....	202,775	263,700	251,130
Rice.....	31,465	37,791	46,007
Sugar, raw.....	55,851	46,000	37,444
refined.....	280,216	456,189	556,680
Tobacco.....	68,365	51,750	61,651
Steel.....	23,130	22,304	36,903

This statement does not show any sign of increased activity in the trade with Holland. Bricks, glass, hoops, and refined sugar, exhibit an increase; but most of the other articles have retrograded.

The next table exhibits the quantities of the principal articles imported into Norway from Great Britain, in 1835, '38, and '41:—

Articles.	1835.	1838.	1841.
Brass wares.....lba.	10,035	10,917	16,036
Cotton wool.....	30,536	64,926	126,419
twist.....	64,721	246,959	594,678
manufactures.....	83,876	86,200	226,313
Coffee.....	226,490	84,716	185,979
Coals.....tons	8,043	21,523	27,546
Dye-woods.....lba.	89,442	43,231	88,354
Earth-n-ware.....	548,891	605,720	800,047
Copperas.....	74,550	74,843	125,438
Flax.....	24,994	83,884	97,573
Gunpowder.....	38,569	47,537	74,347
Hides.....	15,377	.....	51,571
Fire-clay.....tons	250,650	330,000	260,000
Iron, wrought.....	205	304	287
cast.....	89	53	113

Articles.	1835.	1838.	1841.
Lead	53,704	56,912	111,089
Linens	21,490	54,124	46,232
Paints	198,515	59,405	249,974
Porter	28,791	24,758	43,374
Rice	28,678	22,349	14,742
Salt	1,415	3,256	1,727
Saltpetre	54,387	67,241	73,558
Shot, patent	45,411	46,257	56,939
Soap	181,064	30,489	184,169
Sugar	177,179	38,908	179,452
Tin-ware	9,253	8,869	78,396
Thread	14,866	8,334	31,942
Tobacco	437,402	170,379	409,791
Woollens	75,390	59,601	106,695
Steel	44,550	69,686	137,823

A considerable increase has taken place in many of the imports from Great Britain, such as in cotton wool, cotton twist, and manufactures, earthen-ware, gunpowder, lead, and woollens; but, on comparing the trade in manufactured goods and colonial produce between Great Britain and Norway, and between Altona and Hamburg and Norway, it will be found that we fall far short of the latter. Since, however, says Mr. Macgregor, in his Commercial Tariffs, Part XII., the establishment of a regular communication once a week by Hull steamers, between that port and Christiansand, considerable quantities of colonial produce and of British manufactures are imported that way into Norway; and it is hoped that the direct trade with England through that channel will increase, and supersede, in some degree, the indirect and costly traffic by way of Hamburg and Altona.

Our trade with Norway will most probably receive an impetus from the recent modifications of our tariff; and, should alterations be made in the duties now levied in that country on our cottons, woollens, and hardware, the improvement would no doubt be rapid and lucrative, and the trade might again be drawn into its legitimate and direct course.

The imports from France, although, generally speaking they have increased of late years, are not as yet of much consequence. The exports of Norwegian produce form the principal trade with that country. The following were the principal articles imported from France, in 1835, '38, and '41:—

Articles.	1835.	1838.	1841.
Brandy	698,956	675,652	635,760
Coffee	84,245	97,497	185,979
Corks, cut	16,214	27,734	28,504
Flax	10,786	59,994	63,390
Glass	13,641	19,624	14,460
Leather	101,635	93,649	175,566
Molasses	612,253	390,105	801,188
Paper	9,598	18,824	28,900
Dried fruit	89,815	29,553	114,294
Rice	10,788	3,395	17,671
Salt	9,485	11,021	11,701
Sugar, refined	51,172	59,901	25,883
Soap	1,420	3,109	7,724
Tartar	9,870	2,283	8,664
Turpentine	10,020	2,020	8,760
Vinegar	104,688	87,060	46,884
Wine	458,232	256,828	331,180

The greatest advance appears to have been made in the articles of coffee, cut corks, flax, glass, leather, molasses, paper, dried fruits, and soap.

Since the separation of Belgium from Holland, a direct intercourse has been established with Norway, which promises well, and will probably become extensive. At present, the imports from Belgium are confined to a few articles, such as—

Articles.	1835.	1838.	1841.
Bricks	No. 115,340	61,359	98,576
Coffee	lbs. 7,083	18,067	18,210
Cotton wool .....	.....	7,900	14,261
Flax	41,035	47,688	131,424
Glass	4,692	12,520	14,818
Hoops	No. 18,750	.....	244,424
Leather	lbs. 4,728	262	59,563
Paints	91	689	9,960
Rice	685	5,350	28,740
Sugar, refined	76,676	255,502	586,638
Soap	4,728	2,217	19,086

The trade with Spain, Portugal, and the Mediterranean States, is limited, and is confined to the produce of the respective countries. The principal imports were—

Articles.	1835.	1838.	1841.
Cork	lbs. 81,996	8,439	71,584
Figs	5,445	8,019	15,901
Oranges	30,523	101,551	149,541
Raisins	4,264	11,241	18,192
Salt	tons 33,100	37,426	43,399
Wine	qts. 46,840	40,386	164,425

We may here shortly observe that a very cursory examination of the foregoing abstracts of the imports will be sufficient to acquaint us with the increased consumption of articles of luxury, and this fact may be taken as a fair criterion of the growing prosperity of the country.

It only now remains for us to take a short review of the shipping of Norway.

There appear to have been—

In 1817.....	1,692 vessels, of 175,920 tons.
1827.....	1,866 " 143,470 "
1837.....	2,373 " 206,122 "
and in 1841.....	2,509 " 266,801 "

employing rather more than 15,000 men.

The Norwegian flag is to be met with in all parts of the world, competing with British shipping in the carrying trade. As a proof of the extent and success with which they have appropriated to themselves a portion of the carrying trade of the north of Europe, it need only be stated, that in 1838, 249 Norwegian vessels, of 64,784 tons, cleared from Swedish and Finnish ports in the Baltic with cargoes for foreign ports. And 18,733 tons of Norwegian shipping were employed in carrying freight from one foreign port to another.

The vessels of Norway begin to offer a serious competition to our own shipping in foreign ports, and it will be found that they not only rank next to the British, but in many places command a preference. And this close competition and preference is not to be traced to any peculiar encouragement offered by the Norwegian Government, or to any superior economy

which enables the Norwegians to sail their vessels at a cheaper rate than British vessels, but chiefly to the superior class of masters which the laws of Norway have created. The Norwegian Government, by wise regulations, have, in addition to the practical test required, made certain intellectual acquirements obligatory on those who aspire to be masters of vessels; and the result has been that an intelligent and respectable class of masters has been formed, which has created for their marine a confidence and respect, which our own appears to be losing; for our ordinary class of masters appear to have remained stationary, if they have not absolutely retrograded.

These are valuable observations on the improvement of the commercial marine of Norway; and no doubt much of the competition now offered in foreign ports to our shipping, by the Norwegians, Prussians, Austrians, and Americans, might be successfully encountered and overcome, if the British Government would follow the example of the Norwegian, and establish a sound and practical examination for the officers of our mercantile shipping.

For the last ten years, from 1833, the annual average number of vessels that cleared from Norway to Denmark was 2,136 of 79,352 tons, and from Denmark to Norway 2,262 vessels of 91,275 tons.

There were despatched from Altona and Hamburgh to Norway—

In 1835.....	vessels of 12,990 tons, of which 92,511 tons were Norwegian.
1838.....	" 14,365 " 10,359 " "
1841.....	" 19,997 " 16,138 " "

From Norway to the several ports of Holland, the number and tonnage of cargoes cleared were—

In 1835.....	898 cargoes of 135,112 tons, of which 79,131 tons were Norwegian.
1838.....	861 " 133,395 " 84,952 " "
1841.....	966 " 139,030 " 92,191 " "

The chief proportion of goods exported to our own country is conveyed in Norwegian vessels, as the following figures, showing the number and tonnage of cargoes shipped from Norway to Great Britain, will testify:—

In 1835.....	787 cargoes of 115,136 tons, of which 103,607 tons were Norwegian.
1838.....	917 " 134,048 " 125,048 " "
1841.....	831 " 135,842 " 125,502 " "

And the following number and tonnage of vessels belonging to Norway brought cargoes from foreign ports to Great Britain:—

In 1835.....	188 vessels, of 37,726 tons.
1838.....	139 " 33,538 "
1841.....	151 " 39,296 "

A large amount of shipping is employed in the trade between Norway and France, as may be seen by the following number and tonnage of vessels sent from Norway:—

In 1835, 730 vess. of 124,472 tons, of which 703 vess. of 119,837 tons were Norwegian.
1838, 860 " 141,227 " 797 " 132,712 " "
1841, 829 " 148,203 " ... " 139,842 " "

Independent of this important amount of Norwegian shipping employed between the two countries, about 31,200 tons are annually engaged in the carrying trade between France and other foreign countries.

In further illustration of the increased employment of the Norwegian shipping in the direct and carrying trade with foreign countries, we have inserted the following statement of the number and tonnage of Norwegian vessels employed in the foreign trade with each of the principal countries in the two years 1838 and 1841:—

1838.

Countries at which the vessels arrived.	FROM NORWAY.		OTHER COUNTRIES.		TOTAL.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
Sweden	350	49,257	169	52,939	519	102,196
Russia	116	13,609	67	13,905	183	27,514
Prussia	202	12,228	86	7,748	289	19,976
Denmark	803	25,429	63	4,360	866	29,789
Altona and Hamburgh...	84	10,357	64	5,096	148	15,455
Holland	356	84,952	52	10,563	408	95,515
Great Britain	730	125,048	139	33,587	869	158,635
France	797	132,712	171	35,350	968	168,062
Belgium	64	8,358	63	15,153	127	23,691
Other countries	86	12,209	188	36,965	274	49,174
Total	3,589	474,341	1,062	215,666	4,651	690,007

1841.

Sweden	487	68,801	182	60,502	669	129,303
Russia	121	15,250	72	19,643	193	34,893
Prussia	281	19,977	61	6,786	342	25,863
Denmark	118	37,784	138	9,188	1,256	46,972
Altona and Hamburgh...	1,146	16,136	85	14,164	2,231	30,300
Holland	359	92,191	78	20,164	437	112,355
Great Britain	731	125,502	155	40,727	886	166,229
France	760	139,482	207	45,775	967	185,257
Belgium	33	4,072	69	16,270	102	20,972
Other countries	102	13,562	188	44,573	290	58,135
Total	4,138	532,487	1,235	277,792	5,473	810,279

Thus the total tonnage of the shipping employed in the foreign trade in 1838 was 690,007; in 1841 it amounted to 810,279, an increase over the year 1838 of 120,272 tons, or $17\frac{1}{2}$ per cent.

Of the 810,270 tons in 1841, 532,487 were employed direct between Norway and foreign countries; whilst the remaining 277,792 tons were solely engaged in the carrying trade between one foreign country and another, against 215,666 tons thus employed in 1838, which shows that in 1841 there was an important increase of 62,126 tons, or $28\frac{3}{4}$ per cent, in this division of their shipping trade. The figures in this statement do not, of course, represent the actual number and tonnage of vessels belonging to the Norwegian commercial marine, as many vessels perform two and three voyages in the course of the year. The real extent of the shipping has been stated in a previous page.

The Norwegian Government, by attending to the skill and activity of their pilots, erecting beacons, and preparing charts, are doing much to facilitate the navigation of their coasts, and to make them, with their thousand fiords and harbors, more accessible than they have been hitherto.

H. V.

Art. III.—MUTUAL LIFE INSURANCE.**SOCIETY ON THE BASIS OF MUTUAL INSURANCE.***"Non omnis moriar."*

THE system of insurance, as now practised in Europe and America, embraces only three kinds of risks—marine, fire, and life risks. Over ships and their cargoes, over houses and their contents, and the chances of life, and over these alone, is its shelter thrown.* Of these three kinds, marine insurance was the first to obtain a firm footing in this country, as it was the first practised in Europe; and, indeed, as a system resting on settled rules of law, dates from the same period in England and the United States, and was incorporated into the jurisprudence of both countries by the same great lawyer Mansfield. At first, the universal usage was, as our older lawyers and merchants can still testify, to insure marine risks with underwriters—individual insurers, who guarantied each, on his own account, any amount of risk he saw fit, and undertook an individual liability for that amount, but no corporate or associate liability. Stock companies for marine insurance were hardly known in America before the beginning of this century, and began to be established at about the same time as the companies for fire insurance. Indeed, fire insurance seems to have been the purpose for which insurance companies were first formed; and on the other hand it has never, we believe, been effected by underwriters, or otherwise than by companies. The Marine Insurance Company, in the State of New York, was chartered in 1802. The State Marine and the Madison Marine were chartered in 1825. Nearly all the Marine companies now doing business in the city of New York, have been chartered since the year 1825.

Most of the fire insurance companies are of the same recent date.

Life insurance in the United States, dates as far back as 1818. In that year, the Massachusetts Hospital Life Insurance Company began to insure life risks. The Farmer's Loan and Trust Company, in the city of New York, was incorporated in 1822, under the name of the Fire Insurance and Loan Company. Its charter gives the company "power and authority to insure all kinds of property against loss or damage by fire, upon any life or lives, and to grant annuities on any life or lives, or in any manner depending on any life or lives." The New York Life Insurance and Trust Company, chartered with a capital of \$1,000,000, in 1830, insured lives to amount of \$2,449,407, between that year and 1843.

The mutual system of insurance, either on marine, fire, or life risks, is of very late date; indeed, it can hardly be said to have been practised at all in the United States before the year 1830. And it is stated in an interesting pamphlet, setting forth the plan and objects of the Mutual Life Insurance Company of New York, that "the subject of mutual life insurance was introduced to public notice in the United States by that company, soon after it obtained its charter, in April, 1842." During the period from 1842 to 1845, the Atlantic Mutual, the Atlas, the Croton, and the Pelican Companies, and others, were chartered, all on the mutual sys-

* This is a general statement. Barratry, or the misconduct of ship-masters, is insured against as a marine risk, although in its nature a distinct kind of risk. The Equitable Insurance Company of New York city, we believe, insures against burglary; but this is an exception.

tem, and all, in addition to powers of marine and fire insurance, having power to insure on lives. The Mutual Benefit Life Company of New Jersey, was chartered in 1845. Besides these, several of the heavy English companies have agencies in the city of New York.

The foregoing sketch, slight as it is, is enough to show the great modifications the system of insurance has undergone, and the great advances it has made, during the last fifty years. Confined, at first, almost entirely to marine risks, we find it gradually expanded so as to take in fire risks, and finally it receives its most peculiar adaptation as life insurance. At the same time that the field of its operations was becoming broader, and its shelter was thrown over more risks, the structure of the system itself underwent great changes. At first, when marine insurance was the only insurance, underwriters were the only insurers. Then corporate and joint stock companies were established, at first, in England, for fire, and afterwards for marine insurance. And finally the mutual system is firmly established. We have here a two-fold advance of the system of insurance; at once in the number of risks to which it is applied, and in the mode of that application. This progress, so interesting, so remarkable, affords matter for much thought and hopeful anticipation. Is there not a natural relation and connection between the mutual principle and the law of insurance itself? and as it is the last, may it not also be considered the necessary and natural result of that law? And why may not the system of insurance—gradually but rapidly extended as it has been, so as to embrace successively first marine, then fire, then life risks,—why may it not be still further extended to embrace other relations of life and new risks?

Before going briefly into the details of mutual life insurance as established and practised in this country, let us say a word or two by way of answer to these questions.

All insurance, whatever its kind, or the basis on which it is practised, whether on the mutual or stock plan, whether on houses, ships, or lives, rests on the same law—the law of average. This law is the result of a science peculiar to modern times—the doctrine of chances. Modern observation has succeeded, it is believed, in detecting, in the midst of the individual irregularity of those events in life which we call accidents, a prevailing general regularity running through and pervading them.

It has been made out that events on earth happen in equal numbers, in equal times; that what we call chances, are, indeed, chances to the individual, but are subject to a general law of regularity in the aggregate. "The number of births, marriages, and deaths, the proportion of male to female, and of legitimate to illegitimate births, the houses burned, and a vast variety of other apparently accidental events, are yet, when our experience embraces a sufficiently wide field, found to be nearly equal in equal periods of time."* As this fact is often stated, there seems to be a wonderful mystery in it. Fate seems unveiled, and its decrees divulged. Yet it is a truth, striking rather from the newness of its discovery than from any mystery in itself. Instead of asking why events happen thus regularly, may we not rather ask, why should they not? To expect events to happen in unequal numbers, in equal periods of time, other things being equal, would be to expect effects without causes. While events are happening, time must pass; and we have no more reason to suppose that

* McCulloch, Commercial Dictionary, Art. Insurance.

events would happen irregularly, than to suppose that time would pass with unequal velocities. That this truth should not have been thought of, that it should not have been made use of, until this late day, might seem strange, did we not recollect that it is not until this late day, that the true and proper use of society, as a relation among men for their mutual benefit and protection, and not an arrangement for convenient oppression of them, has been recognized.

If the individual uncertainty of the events of life were removed, we should, indeed, have a great discovery. But we have no such thing. Modern science declares, that out of a given number, in a given time, so many shall surely die; *who* shall die, it does not pretend to say, it does not care to know. It has secured enough for its benevolent purposes: for while the uncertainty of those events which dishearten, and impoverish, and destroy, remains, science enables man, by the exercise, at his will, of a prudent foresight, free from all possibility of mischance, to prepare for the event, and soften the blow as it falls; and thus, in a new sense, while

"Binding nature fast in fate,
Leaves free the human will."

The system of insurance, as at present practised, assuming this fact of regularity, with regard to shipwreck, fire, and death, and guarantying its truth, provides a fund by mutual contributions, to be distributed in fair proportions among those of the contributors who shall suffer by these calamities. But are shipwreck, fire, and death, the only events which happen with regularity? Are they the only disasters in the world? We have said that this general regularity is nothing wonderful: it means nothing more than the absence of any special interposition of Providence to disturb the ordinary course of human events. It is not then confined to shipwreck, fire, and death. Nor are they the only disasters. It is not every one who owns ships and houses. It is not every one who can indulge in the complacent regret of Dogberry, that he is "one who hath had losses." But all, the mechanic and the laborer, as well as the trader and the capitalist, have health to lose; and to them, health is wealth also, and the only wealth. Moreover, the man of money is liable to loss of money in many ways besides shipwreck and fire—ways far more frequent and dangerous than they. Failures, frauds, the bad faith of buyers, of sellers, and of agents, mercantile loss in its thousand forms, are events more frequent than shipwreck and fire, and as disastrous. If, then, these events are as capable of being made the subject of insurance as those to which it is now applied, being equally regular—if they need it more, being more common and more ruinous—why should not the system of insurance be made to embrace them also?

We hear much declamation and denunciation about the love of money among men, the pursuit of wealth, the making haste to get rich. But we are persuaded that it is not the desire of wealth that can or does keep the world at work with the regularity of daily routine, which, day by day, fastens the merchant to his wares, the mechanic to his tools, the laborer to the ground. It is not the love of money, but the fear of want. Hopeful, indeed, is human nature, far more hopeful than we think it, if the millions who toil for daily bread are toiling with any other motive or hope. No. It is the boding possibility of the poor-house, staring men in the face—the chance of coming to want, arising from the present arrangement of society, by which each man is left to take care of himself—the chance

of falling in the ranks, in the forced march of life, to be trodden down by the advancing throng—this possibility, this chance it is which keeps the energies of men feverishly, ceaselessly at work.

We do not complain of this necessity for labor, but we do complain of the unequal allotment of labor and of its uncertain reward. We would not have the necessity of labor removed, if we could; but we would have some change, some modification of the arrangement of society from which this inequality of allotment and uncertainty of reward arise, by which the evils of them may be at least assuaged. We believe that these are in truth those social evils for which so many and so various remedies have been started. The Liberal and the Radical insist on the efficacy of party organizations. On the other hand, the Fourierite urges a reorganization of society. But the Socialists, going farther than all the rest, bid us break society into pieces in order to recast it. Like Medea, they ask of society to surrender its life with, its infirmities into their hands, trusting to their good faith, as well as capacity, to renew its youth.

What forms of government can do for man—how far, as a contrivance of human wisdom to provide for human wants, they are effectual in preventing evil, and in doing good, the American citizen of the present day, is, perhaps, better able to judge, than the citizen of any other country, or the people of any other age. Americans know, because they enjoy to the full, the blessings of civil liberty. But knowing to the full how much civil liberty can do for man, we also know how much it cannot do, and must, as the result of our experience, confess with chagrin how insufficient for the well-being of men is civil liberty—how vast is the gap between civil liberty and social liberty. The right of personal security, of private property, and of reputation—the right of marriage, the great rule of equality before the law, and the right of all citizens to a voice in those public affairs which are the common concern of all—these go to make up civil liberty. Yet what is civil liberty, as thus defined, but a statement of what all men may claim as rights, rather than of what all men need—of the wrongs which men must not do each other, rather than of the good they may? It contemplates a state of society in which each man stands apart on his reserved rights, left, isolated, to take care of himself—in which the strong and cunning secure a goodly share for themselves, by virtue of "the sacred right of property," while the simple and the unfortunate are left to go to the wall.

Side by side with this civil liberty may exist want, destitution, and degradation. In the enjoyment of this civil liberty, life may be a burden. The greater its perfection, the greater the mockery of the contrast. It affords one of the many illustrations of that wise saying of Johnson's, "there are many things it is misery to want, which it is not happiness to possess." Civil liberty may be the highest boon to man, but there are some things prior, if not higher. Man must be free, to be happy; but he must live, to be free.

Civil liberty prevails to a great extent in England and France,—to a greater or less degree in all the civilized States of Europe. Americans think it is enjoyed to the full in America. It prevails in Great Britain. There, the strong may not strike the weak; the poor may not rob the rich; the equality of all before the law is tolerably well maintained. Yet what shall we say of the four millions of English work-house citizens,—of the seven millions of Irish "*freemen*?" It prevails in America. Yet

what shall we say of the millions of our day-laborers, freemen all, under the guarantees of civil liberty, yet hirelings, whose lot it is to toil each day, the day long, but for meat to give them strength to toil. The three millions of Southern slaves, without right to their own lives or their own limbs, without the right of property or of marriage, standing in the scale of civil liberty far below English paupers, yet have far more than they of those physical and social comforts, the want of which makes life a dependence and a degradation. Slavery, true to the domestic and social nature of the institution, secures to the slave, while it unmans him, many of the physical and social wants of a man; while English liberty, in its respect for the sacredness of civil rights, stands reverentially apart, and leaves them sacred and in rags. Want, and the fear of want—the dependence of the employed on the employer, of the laborer on the capitalist, of the borrower on the lender,—all the evils, in short, of an unequal and isolated social condition, may co-exist with civil liberty; but where they exist, in the degree they exist, there is not social liberty. We would have both. In addition to security for the right of man, we ask provision for the wants of man. We would have secured a fair reward and a certain reward for labor.

But if society needs something more effectual than the forms of civil government, and the guarantees of civil liberty, to secure the masses, the certainty of daily food, raiment, and shelter, freedom from dependence and the fear of want, it also needs something more feasible than new theories of society. Difficult as it is to pronounce concerning human society, what is natural and necessary to it, and what is factitious, we are persuaded that the relations of parent and child, of husband and wife, the family relation in all its branches, the relations of buyer and seller, of employer and employed, and of rich and poor, have their root in the nature of things. Any system which proposes to remedy the evils of society by cutting up the roots of these, essays to cure by killing. The remedy must be brought about, not by the destruction, but by the modification and amelioration of the present order of things. We must take men as they are,—the interests, the inclinations by which they are now moved,—and not by uprooting but by giving them a new direction, bring about a better state of things. Let parties continue their feverish strifes, working out, blindly and unwittingly it may be, a high and useful end—let the merchant, the mechanic, the laborer, keep to their callings, effecting public good while intent only on private gains—let the sacred privacy and purity of the family relation remain—nay, more, let the inequalities of fortune remain, the necessary result, perhaps, of a corresponding inequality of powers, and more beneficial than any forced equality, were it possible,—let them all remain, but give us at least some modification, some new adaptation of them, which shall put an end to the cold isolation of man from man—which shall make mutual dependence a bond of union, instead of a chain of servitude—which shall secure aid in misfortune, not as a charity but as a right—which, in short, shall make the freemen in law, free also in social condition, and shall relieve civil liberty from the harsh contrast in which it now stands with the rags of its votaries.

The great and growing inclination to associated action which pervades society in this age, has been often remarked. Springing from a clearer recognition, than has ever before prevailed, of the true use of society as a union for mutual good, it may, perhaps, be looked upon more than any

other one thing, as the characteristic of the age. By partnerships, by incorporation, by joint stock companies, by lodges, by united fraternities, and by clubs, the benevolent purposes and the great and daring purposes of the age are affected or essayed. By these, canals have been dug and railroads laid, steamships launched and factories built; by these, food has been supplied to the hungry and care for the sick; by these, great commercial enterprises have been carried on, colonies have been planted, and empires founded; by these, missionaries and teachers have been sent "out into all the earth." How much the principle of associated action has done for insurance we have already seen. We have seen that insurance by individuals, which was never practised in more than one branch of risks, has been partially superseded, even in that one branch, by companies for insurance, to which all the other branches of insurance are exclusively confined; and we have noticed its last and most interesting development in the mutual system.

These facts force upon us the question—may not this plain of associated action, which has done so much for the world, do still more? May not this plan, which has done so much in the form of insurance, do far more by means of insurance? Let us not be misunderstood when we say, that by a wide and general application of the system of insurance, a direction may be given to this most powerful agent, the spirit of associated action, which would lead to much good. Only political quacks, or political dreamers, cry up new panaceas for social evils. It cannot be too often repeated, that if society is to be bettered, it is to be done indirectly, by degrees, and by the application of forces now at work in society, not by the introduction of new forces. Among these existing forces, the spirit of which we speak is certainly one of the most powerful; as, directed to the purposes of insurance, it is one of the most familiar. For both reasons, therefore, a general system of association for the insurance of all the great risks of society is recommended.

How will the system of insurance, thus applied, meet the evils arising from the unequal allotment and the uncertain reward of labor? We have said that this unequal allotment and uncertain reward, come from that social arrangement which leaves each man to take care of himself, to stand or fall by himself, and which makes the masses dependent on daily labor for daily bread. Now, to the laborer, thus self-dependent, thus relying on a single dependence, loss of health or loss of labor is an utter blight. What case can be imagined, more urgently calling for relief from a system of compensations like insurance, than that of the laborer, out of health, or out of work? What is shipwreck to the merchant—what is fire to the man of estate? They have other ships, other houses; they have wares, and money in bank: at least, they have health and hands, while even the use of these is denied the laborer pining in sickness, or unwilling idleness. Moreover, as we have seen, the mechanic and the merchant are liable to many kinds of loss, besides shipwreck, and fire, equally subject to the law of average occurrence, equally uncertain as to individual occurrence, making the reward of their exertions uncertain. But for these there is no insurance. When they fall on a man, he is left to suffer alone.

Now insurance does not pretend to diminish the aggregate of human misfortunes. On the contrary, it assumes that aggregate amount as a fixed fact. But it also assumes the larger aggregate of prosperity as equally certain. It presupposes a loss of money to some of the insured, or rather

a payment of money, which the event proves needless. The fire, the shipwreck, never happens. The life insured lasts longer than its average length. Beyond the sense of security, therefore, which the premiums have earned to the individual, they have been money given away; but beforehand no one could tell this. Insurance, therefore, takes from all a contribution; from those who will not need its aid, as well as from those who will; for it is as certain that some will not, as that some will. But as it is uncertain who will, and who will not, it demands this tribute from all to the uncertainty of fate. And it is precisely the moneys thus given away by some, and these only, which supply the fund out of which the misfortune of those whose bad luck it is that their moneys have not been thrown away, are repaired. The afflicted finds his money spent to some purpose, and only the fortunate part with it for nothing. From this point of view the whole beauty of the system of insurance is seen. It is from this point of view that it presents society a union for mutual aid, of the fortunate and unfortunate, where those only who need it receive aid, and those only who can afford it are put to expense. Thus, while the aggregate of human suffering and calamity remains undiminished—thus, while the uncertainty of their visitation remains unremoved—human ingenuity and co-operation equalize the distribution of this fearful aggregate, and alleviate the terrors of uncertainty.

Let us suppose such a system to be carried out. It shall embrace all the ordinary risks of social life—1. Shipwreck; 2. Fire; 3. Life; 4. Loss to the merchant and mechanic by failures, the frauds of employers, of agents, of buyers and sellers; 5. Loss in carriage by land; and, 6. Loss of health and of employment, to the mechanic and laborer. The associations might embrace only those of the same calling, or they might take in all pursuits and all risks. Each city and township, or each county, might have one or more associations of its own. County mutual fire companies have thus been very generally established in this State. By a system of mutual insurance thus generally established, embracing all callings, a great fund, as it were, for the benefit of society, would be created; a fund to which none could be said to contribute gratuitously, from which none but the needy should be aided; a great reserve fund, held in readiness for the uncertain case of want. We thus have the mechanic, the laborer, and the merchant, joined hand in hand in mutual protection against the risks of their callings; we have the masses, above all, shielded from the most blighting evil of the inequality of human condition, the danger of destitution; we have society united on the basis of mutual insurance.

We pass from these views, which, we fear, will be called theoretical, to matters, which, we suppose, will be thought of more practical interest; which, we are sure, afford the best illustration of the general system of insurance, of its flexibility, and of the variety in modes of application to the varying circumstances of life, of which it is capable. We will give, briefly, the details of mutual life insurance as now practised in this country, considering the sources of management of the capital or business fund of the mutual life companies, the persons whose lives are insured, the risks taken, and the persons in whose favor lives are insured, referring more particularly to the charters of the Mutual Life Company and the Mutual Benefit Life Company of New York city, the State Mutual of Worcester, in Massachusetts, and the Loan Fund Life Company of London, which, although not a mutual company, is yet not merely a stock company,

but combines the two. Both the London and Massachusetts companies have agencies in the city of New York.

The great object of life insurance is the creation of a fund, out of which the sums stipulated are to be paid in case of death. In the mode by which this fund is created, lies the difference between the stock, or proprietary, and mutual systems. In the stock companies, it consists, primarily, of a capital stock in shares paid in by the proprietors. In the mutual companies there are no shareholders distinct from the insured, those insured being themselves the insurers also, and the fund is raised from the insurance rates, or premiums. In the proprietary, as well as in mutual companies, the fund thus obtained from premiums is devoted to the payment of the sums insured; but in the mutual companies there is, primarily, no other fund than this, nor is any other deemed necessary. The object of a capital stock is alleged to be to secure the insured, and supply any amount in which the proceeds from premiums and business may fall short of the sums insured. But if the funds from premiums are likely to prove insufficient to cover losses, what are the stockholders to look to for dividends on their shares? There is nothing but the premiums, strictly, out of which they can pay themselves for the risks they undertake. In other words, if the law of average, on which the calculations of life insurance are based, and by which the rates of premium are determined, is not sufficiently well established to secure an amount of funds from premiums, large enough to cover losses and pay interest on stock, then life insurance stocks, all insurance stocks, are far from safe, not to say profitable investments. On the other hand, if the stock system is profitable, the mutual system must, at least, be safe; for premiums that yield fund enough to pay interest on capital stock, must, of course, yield fund enough to cover risks. Now safety is all that, in the mutual system, is sought; if the guaranty of the risk is good, it is enough; profit is out of the question. There are no stockholders. The insured, who would make the profit, are themselves the insurers out of whom it would be made.

The rates of premium are determined on issuing the policy of insurance. A man wishes to have his life insured for a certain sum, for the period of his life; in other words, he wants a guaranty that this sum will be paid on his death, whenever it happens. His age is twenty-five years. On applying to a mutual life company, the tables of average life are consulted, and the average age persons twenty-five years old attain, in the community to which he belongs, is ascertained. The actual observations on which this table is based, are the calculations made by Dr. Price from the bills of mortality of Northampton, and by Dr. Heysham from those at Carlisle, extending from the year 1779 to 1787. "It is generally conceded that the rate of mortality, in the Middle and Eastern States, corresponds very nearly with that given by the Carlisle table:"—"it may be relied upon in all calculations wherein the tenure of life is concerned, throughout the Middle and Eastern States, also the Western, and a portion of the Southern."^{*}

The average chance of life of the applicant, ascertained by this table, is the basis of the terms of guaranty. The company undertakes no payment of a gratuity. It requires an equivalent from the insured. If this

^{*} A Treatise on Life Insurance; together with a Short Account of the Mutual Life Insurance Company of New York. New York: 1845.

equivalent is to be paid in annual instalments, these instalments must be of such an amount, that a number of them, equal to the number of years which the party has a chance of living, will amount to the sum guaranteed. An instalment of this amount is demanded, as the consideration of the guaranty; in other words, this is the fair proportion which the applicant is to contribute to the common fund of the association of which he is thus made a member, and in which he is at once insured himself, and the insurer of his fellow members. And this annual instalment is the premium rate.

The provisions relating to membership, and the payment of premiums, in the Mutual Life Company of New York, are in sections 3 and 7 of its charter. Section 3, provides that all persons who shall insure with the corporation, and also their heirs, executors, administrators, and assigns, continuing to be insured, shall thereby become members thereof, during the period they shall remain insured by such corporation, and no longer.

Sec. 7. "Every person who shall become a member of this corporation by effecting insurance therein, shall, the first time he effects insurance, and before he receives his policy, pay the rates that shall be fixed upon and determined by the trustees, and no premium so paid shall ever be withdrawn from said company, except as hereinafter provided, but shall be liable to all losses and expenses incurred by this company during the continuance of its charter."

If the man whose life is thus insured, lives out the average term of his life, he will have paid out in premiums the sum insured; if he lives longer, he will have paid more than the sum insured; if it is his chance to die before his term of life is spent, the benefit sought is obtained: for it is the chance, the chance of premature death, from the evils of which life insurance aims to guard us.

But, it will be said, the moneys which have thus been paid out, as premiums, year after year, during a long life, and which have been accumulating in the hands of the company, might have been yielding interest during this life to the insured, so that, if it lasts as long as the average, or longer, and the premiums consequently equal or exceed the sum guaranteed, he is a loser by the amount of the interest at least. This disadvantage is obvious—too obvious not to have pointed out its own remedy. The company can do for the insured what he would have done himself with his funds had they remained in his hands. What safer, or more profitable disposition of the funds, than investment on security?

The Mutual Life Insurance Company, of New York, provides, by section 10 of its charter, that the whole of the premiums received shall be "invested in bonds and mortgages on unencumbered real estate within the State of New York." Section 11, however, authorizes the company to invest "a certain portion of the premiums received, not to exceed one-half thereof, in public stocks of the United States, or of this State, or of any incorporated city in this State."

The State Mutual, of Massachusetts, authorizes its financial committee to invest the capital, stock, and other funds of the company, to collect or sell the stocks or securities on hand, or any part of them, and invest anew the proceeds.

The Mutual Benefit Company of New York proposes, in its printed statement, to invest "in bonds, and first mortgages on unencumbered real

estate, or in stocks of the United States, or of the States of New Jersey, New York, or Massachusetts, or to members on their policies."

This plan of loaning to members on their policies is borrowed from the English companies, some of which united a scheme of loans with insurance on lives. By the terms of the "National Loan Fund Life Assurance Society," of London, the assured has the privilege of converting his policy, at any time, "into a security on which he may borrow equal to two-thirds of his payments." "He may, at *any time*, (after the expiration of one year,) act upon the fund" to this extent, "as a cash credit, upon giving notice to the office or agent, at each branch of the Society."

This plan, in connection with life insurance, has much, we think, to recommend it. It contemplates the wants and emergencies of life, as well as death—the present interest of the insured, as well as that of survivors. It takes away, to a degree, the somewhat repulsive *post mortem* aspect of life insurance. It is, in a manner, an approach to that general application of the insurance system to the emergencies of life which we have been urging. Yet it is merely a provision for loans, on which interest is to be paid, and not a guaranty or insurance against the wants or misfortunes which, it may be, occasion the necessity of borrowing. The facility, however, of borrowing on the mere security of the policy, is no small thing in these times, when money is necessary even to hire money, and the ability to borrow implies that the needy man is worth at least twice the amount he borrows.

The management of the fund is, perhaps, the most delicate and responsible part of the insurance system—even more so than the adjustment of the premium rates. It is evident how much wise and judicious investments may effect. The accumulations of the fund become, necessarily, in course of time, very great. The investments are, in fact, at compound interest—for the interest, as it accrues, is itself put out at interest.

There is, however, a coloring, an exaggeration in the statements of the warm friends of the mutual system, concerning these accumulations, which may mislead. They are enlarged on as the profits of successful business. Bonuses, dividends, accumulations, are triumphantly pointed to as the results of the mutual system, and we are reminded that the stock companies pay but the bare sum insured. "To illustrate the advantages," (we quote from the pamphlet before mentioned,) "resulting in favor of the Mutual Company, in these supposed cases of insurance, we shall take for our data the accumulation of profits, from the experience of the Equitable Society, of London, to which we have before had occasion to make reference. Suppose the parties to have been thirty years of age, at entry, and insured in the sum of \$10,000; the insurances are continued twenty-two years before the purposes intended are accomplished. The accumulation on them during this term of twenty-two years, by the above data, is \$10,050. We here have a very large accumulation of profits to the credit of the parties, wholly growing out of the mutual principle, and continued for their future benefit. These advantages are entirely lost with a joint stock company; the action of such a company gives no such benefits, as the profits accruing from the transactions are periodically withdrawn from it, and disbursed among the stockholders, in remuneration for their investments." This statement is not correct, in point of fact, with respect, at least, to some of the stock companies. The National Life Company, of

London, for instance, undertakes to divide two-third of the *profits* (as they are termed) annually, among those assured for life.

But, allowing the superior advantages of the mutual companies as thus stated, and they are undeniable, we still deny that these sums, accruing as in ordinary cases they can accrue, only from the accumulation of interest, are, in truth, profits. If by profits anything more than this is meant—if we are to understand by it the excess of premiums paid in over losses paid out, the word is equally out of place. The premiums, based on the law of average, are fixed at such rates as to be sure in the long run to equal the amounts insured. If the rates are less, the company runs great hazard. If greater, the rates are exorbitant, funds will be accumulated unnecessarily, and dividends made from them will in fact be but repayments of needless charges.

The interest on deposits in savings banks is as much profit as the interest on the funds of the mutual companies. They are, in this respect, savings banks, and nothing else. The advantage is the same in both, and it has often been enlarged upon in favor of the mutual life companies. But, in addition to this, they have the great, the vital advantage, that a certain fixed amount is secured, to be paid whether the sums deposited, or premiums, equal that amount or not—while, in savings banks, only the sum deposited is repaid, with interest. But the interesting connection of the two systems is here obvious. Had we the space, we should deem it no digression to state briefly the statistics of savings banks, and sketch their rapid advance from the year 1804, when the happy scheme was first introduced in England by Priscilla Wakefield, down to the present day, when, in Great Britain, the number of depositors is over eight hundred thousand, and the sums deposited amount to \$117,000,000, and in New York the number of banks is seventeen, and the amount deposited is over \$7,000,000. Savings banks and life companies are both the result of the same general movement of the times—the same prevailing disposition among all classes, to prepare for the chances of life, out of certain gains to make provision for possible misfortunes, and to unite in providing compensations for the evils and risks of an unequal and isolated social condition.

The accumulated interest on investments is variously disposed of, by different companies. It of course belongs to the members, in due proportion to their payments of premium; only the mode of benefiting by it varies. Some insist on the importance of retaining the interest and adding it to the fund, in order to secure a safe basis for business. The share of interest due to each member is added to the sum insured, and the accumulated amount paid on the termination of the life. This is the plan pursued by the Mutual Life Company of New York. Another course is, to apply it to the reduction of the premium rates; a third, to distribute it in dividends. The Mutual Benefit Life, of New York, and National Loan Life, of London, pursue either, at the option of the insured—or, as the circular of the latter states the matter, "Two-thirds of the profits are ANNUALLY divided amongst those assured for life, on the participating scale of the society; and each bonus, at the option of the assured, will be paid in money, or applied to the reduction of the future premiums, or an equivalent added to the policy." These different plans all plainly amount to the same thing. If the premium rates charged are high enough to secure an ample fund for the operations of the company, the interest may be, and ought to be

divided. If the dividends are low, it is equally wise and fair to accumulate the interest. The insured gets the good of it, either in a dividend or a larger amount of policy, or a lower rate of premium.

Another important consideration relating to the premiums, is the terms of payment. The general extension of the system evidently depends much upon this. If the rates are not only high, but made payable at distant intervals, and in large amounts, and if the penalties and forfeitures are rigid, none but those of certain and considerable means can venture upon life insurance. The present terms of the life companies are far otherwise. If the insurance is for life, the premium is generally payable in annual instalments, or in one gross sum. By the regulations of the Mutual Benefit Life Company, the "premium, if over \$50, can be paid one-fourth in cash, and three-fourths in a secured note at twelve months, bearing 6 per cent interest, and subject to assessments if required; or it may be paid monthly, or quarterly." This company has another excellent arrangement which deserves particular notice. Persons "insure \$500 for life, by paying twenty-five cents weekly, or \$1,000 by paying fifty cents weekly, the policy always remaining with the company, with the premiums paid endorsed thereon; and in case of death they will be entitled to the amount thus insured, deducting therefrom the balance remaining of weekly payments, with interest for the current year." In the National Loan Life Company, a "life assurance may be effected either by one payment, or by an annual premium, which may be paid monthly, quarterly, or half-yearly, if more convenient." And all the life companies, we believe, offer to take back policies on certain terms, paying for them a fair equivalent. But this privilege of surrender is, in general, confined to policies for life. The National Loan Life, however, allows the assured to convert his policy "into an immediate payment, after five years, of its present value." We do not see how the advantages of the savings bank and of the life company could be combined and placed within the reach of all more effectually than by these facilities, in addition to the privilege of borrowing on the security of the policy.

The person whose life is insured, as the term is, is the person on whose death the money is payable. Life may be insured for life, or for a number of years; and insurance is made on survivorships, payable to one of two, in case he survives, on the death of the other; and upon joint lives, payable to either of two, on surviving the other.

Life risks are, as a rule, guaranteed only to persons of general good health. The reason is obvious: insurance guarantees the law of average, as it applies to communities ordinarily healthy,—to insure the sick would be to guarantee the exception, and not the rule. The health of the applicant is ascertained by his solemn statements, and the examination of a physician.

We have said that the person paying the premium is the one on whose death the sum insured falls due. There is certainly, at first thought, something chilling and repulsive in the idea that your own death is to be the occasion and condition of the benefit bought by your own money. We have seen, however, what present advantages and facilities to the insured the mutual companies now afford. Moreover, we believe they allow persons to have insurance effected on the lives of others. Whether this practice, in general, would be held consistent with the policy of the law, and is legal, is not altogether clear. But it is very certain that any one

having a claim on another, and therefore a pecuniary interest in his life, may get that life insured for himself; and, at any rate, policies may always be assigned, and the creditor, or lender, or purchaser, as assignee, receives the benefit of the insurance. And even if the benefit, in ordinary cases of insurance, does not go to the insured himself, yet it goes to that other self, his wife and children. The obligation, too, of an honest debt, is of almost equal concern; but, by the operation of law, a debt has priority over these claims of wife and child—so that if the fund provided by the insurance is insufficient to cover more than the debts of the deceased, the wife and child may still be left portionless, and even insurance fail of its highest aim. In view of these considerations, the Legislature of New York, has enacted as follows:—

“Sec. 1. It shall be lawful for any married woman, by herself, and in her name, or in the name of any third person, with his assent, as her trustee, to cause to be insured, for her sole use, the life of her husband, for any definite period, or for the term of his natural life; and in case of her surviving her husband, the sum or net amount of the insurance becoming due, and payable by the terms of the insurance, shall be payable to her to and for her own use, free from the claims of the representatives of her husband, or of any of his creditors; but such exemption shall not apply, where the amount of premium annually paid shall exceed three hundred dollars.

“Sec. 2. In case of the death of the wife before the decease of her husband, the amount of the insurance may be made payable after death to her children, for their use, and to their guardian, if under age.”

The wisdom of this act is obvious. It simply extends the right of insuring survivors, possessed by all other persons, to the husband and wife. The exemption in favor of the wife and children, as here limited, is sufficient to secure them, at the usual rates, at least \$10,000; and this, together with the accumulated interest of years, is a competency secured.

These details are enough to show the interest and importance of life insurance. They also show, we think, the great feasibility of the whole system of mutual insurance, and its capabilities of general application.

As to life insurance, nothing need be said in praise or defence of it. The arguments for it may be stated in a few words. By the laws of nature, and by the laws of society, a man is placed in relations and under obligations towards fellow beings, which, but for him, would not have existed, and the consequences of which, though ceasing to him with his death, remain to them after it. The wife, the child, the creditor, and their claims upon him, do not die when he dies. Life insurance secures a surviving provision, so to speak, for these surviving obligations—or, rather, secures a man from the mischance of being cut off prematurely, before he has himself made such provision.

The strange superstition about interfering with the mysteries and decrees of fate, and distrusting Providence, needs no notice. Life insurance is no guaranty against death—no attempt to baffle or ward it off. It is the very opposite. It realizes, it assumes and acts upon, the certainty of death. Indeed, when a man has taken the responsibility to act for himself so far as to incur the obligations of a man to wife, and children, and creditors, it is an ill-timed apprehension of interfering with the ways of Providence which fears to make provision for them, after death shall have disabled him. Moreover, merely as an event subject to the law of aver-

age, apart from its blighting consequences to survivors, death may be considered a fit basis of a system of insurance.

It remains to be seen, why all the other mischances of life, equally calling for this beneficent system of recompenses, equally capable of its application, should not also be made subjects of mutual insurance.

Art. IV.—LAW OF DEBTOR AND CREDITOR IN LOUISIANA.

NUMBER IV.*

In a previous article, reference has been made to the principles of the civil law, governing the relation of husband and wife.

So widely different are these principles from those of the common law, and of such great importance is some knowledge of them to a mercantile community, in so far as they affect the commercial relation of debtor and creditor, and so little general information exists upon the subject out of the State of Louisiana, that no apology is deemed requisite for giving to its consideration a space not usually allotted in this Journal to any other than purely commercial topics.

Before proceeding to consider the civil law provisions controlling the rights and duties of husband and wife, upon the subject matter of property, it may not be uninteresting to glance at the articles of that code defining the relation itself, the character of the contract of marriage, and the causes for which it may be dissolved in the life-time of the parties;—and here, it seems a matter of no slight surprise that the civil law, which establishes upon a broader and more liberal basis than any other system the pecuniary rights of married women, and most carefully and jealously watches over and protects such interests, should, in many of its provisions, betray so manifest a disregard to those rights which the sex so much more highly prize, as above riches, and which pertain to the feelings and the affections. What an insult to her dignity and purity of character is that article of the code which declares that the *woman* shall not be at liberty to contract a second marriage until after the expiration of *ten* months from the dissolution of the first, while it leaves the *man* to marry when he pleases!—as if the marriage of the widow at a time when, by any possibility, she could be in that situation so evidently in the mind of the law-makers, could only be prevented by a legal prohibition! Such a provision might have been a wise one, and adapted to the prevailing character of the sex, in the meridian of Rome and Byzantium, after the glory of the ancient republic had departed, and the empire was in its decline; and, even there and then, one would suppose that the legal restraint upon a woman who could think of marrying a second husband, while in a state of pregnancy by her first, would be likely to provoke greater evils than it was designed to prevent;—yet, strange as it may seem, this prohibition is retained in the code of Louisiana, copied from the Code Napoleon, which received it from the Roman law. Nay, in the Louisiana code, it is dignified with an entire

* For No. I. of the series of articles relating to the Law of Debtor and Creditor in Louisiana, see Merchants' Magazine for July, 1846, (No. I., Vol. XV., page 70-75;) for No. II., see same for November, 1846, (Vol. XV., No. V., page 471-475;) and for No. III., see Magazine for January, 1847, (Vol. XVI., No. I., page 53-57.)

chapter, composed of one article—no other provision being allowed, by its proximity, to detract from its emphatic character.*

But, in another respect, the civil code of Louisiana has made a long stride of improvement upon the Code Napoleon and the Imperial rescripts. By the latter, a dissolution of the marriage bonds for the cause of adultery can only be claimed by the injured husband; by the former, "the wife may also claim a separation in case of adultery on the part of her husband, *when he has kept his concubine in their common dwelling.*"† The language of this article is quoted that the reader may fully appreciate the extent of the moral stride of advancement in the legislation of one of our sister States! It would be doing great injustice to the moral enlightenment of a recent legislature of that State, if the writer failed to notice another prodigious stride in the march of improvement, by an amendment of this article, thus—"by adding after the word 'dwelling' the words, 'or openly and publicly anywhere!'"

By the civil code of Louisiana, as also by the Napoleon code, if the wife who sues for a separation from her husband has left the common domicile, or declared her intention to do so, the judge before whom her suit is brought shall "assign a house where she shall be obliged to dwell, until the determination of the suit;" and further, she is held to *prove* that she has not broken bounds, as often as it may be required of her, ("*la femme est tenue de justifier de cette residence, toutes les fois, qui elle en est requise,*") under the penalty of a total suspension of all proceedings on her behalf.‡ With such Argus vigilance does the civil law watch over the husband's honor, by preserving the person and chastity of the wife during this short suspension of his absolute control, that she may be returned to him unbesmirched by soil or cautel, should it be decided that she is not entitled to have her demand for separation allowed!

By the civil code, a separation may be claimed by either party on account of ill-treatment, if that be of a nature sufficiently cruel and outrageous to render their living together no longer supportable. It may also be claimed by either party if the other have "publicly defamed," "abandoned," or made "an attempt against the life," of the complaining party. These are all the enumerated causes for which the dissolution of the marriage contract may be obtained under the civil code of Louisiana.

The separation "grounded on abandonment" is that which is the most frequent subject matter of petition to the courts of that State. The course pointed out by the law to secure a separation for this cause, is so clear and simple, involves to little expense and so little publicity, that the legislative branch of the government is relieved from a burden which is not a little troublesome to some of our State legislatures.§ It may not be uninteresting to take a passing glance at this very convenient mode of untying this, so often, very inconvenient knot. Those who have "got in" to our Court of Chancery for that purpose, and are despairingly persuaded that they have got into the fire from the frying-pan, will lament their deprivation of

* Chapter VI, Art. 134, Louisiana Code—228 Code Napoleon.

† Art. 137, Louisiana Code.

‡ Art. 145, Louisiana—Code Napoleon, Art. 268.

§ We perceive, by a very ably written article in the "Commercial Review," published in New Orleans, upon the subject of "Divorce," that, by a provision in the new Constitution of the State of Louisiana, no divorce can be granted by the Legislature of that State.—Ed.

such reasonable redress; and those who are trembling on the brink of the cavern, almost ready to leap into its capacious maw, may be led to the conclusion that a short sojourn in New Orleans would be much pleasanter, and more satisfactory.

Where the parties mutually seek the separation, the thing is accomplished without the slightest difficulty, and as a matter of course. But suppose the case—not a very violent supposition—of one of the parties being unreasonable refractory; and suppose, too,—not a very unnatural supposition—that that party is the woman. She is sent—her health requires it—poor thing! to France, or to the North; or perchance she is not there at all, and never has been there—the climate would never agree with her frail constitution—and her husband goes without her. He would not leave her, could he avoid it; but his *business requires it*. The petition is filed in court—the petitioner does not swear to it—he does not even sign it—his lawyer does it all. He has told his lawyer that he wishes to be separated from his wife by a good and valid judgment of a court of competent jurisdiction, and that his wife is out of the State—anywhere—in Bordeaux or Mirimachi. The petition declares that she has withdrawn from the common dwelling without lawful cause, and that she has constantly refused to return and live with her disconsolate husband; and then prays that, after *due proceedings had*, a judgment of separation be decreed in his favor, and that she pay the costs of the suit! And what are the due proceedings? Why, of course, proceedings “to make it appear” to the judge that she—wicked woman!—has refused to return to her husband’s home and arms. Now, mark how ingeniously this is “made to appear.” The 143d article of the civil code provides for it thus:—“The abandonment with which the husband or wife is charged must be made to appear by three reiterated summonses—(very much like those made by Charles Kean’s horn-blowers before the walls of Angiers)—made to him or her from month to month, directing him or her to return to the place of the matrimonial domicile, and followed by a judgment which has sentenced him or her to comply with such request, together with a notification of such judgment given to him or her from month to month, for three times successively.” But how is she to be summoned to comply with this demand, or notified of this judicial sentence?—and, being summoned and being notified, how quickly would she fly to her lord’s embraces, and yield herself to the sentence of the cruel judge! All this is provided for as it is foreseen; the latter clause of the article does it beautifully:—“The summons and notification shall be made to him or her at the place of his or her usual residence, if he or she lives in this State; *and if absent, at the place of the residence of the attorney who shall be appointed to him or her by the judge for that purpose, at the suit of the husband or wife praying for separation.*” Thus, upon filing the petition, in which it is represented that she is out of the State, (the only allegation in it, perhaps, which the petitioner would like to swear to,) Oily Gammon is appointed her attorney, to represent and defend her—the summonses are served upon him—the notifications are given to him. It is his duty to correspond with his fair client; to inform her of the proceedings had against her, and urge her compliance with her liege lord’s wishes. He does write, and directs his letters where he is *informed she has fled*—to Siberia or Canada; and when the three summonses and the three notifications have all been duly served, he answers the petition, and tells the court that his client, so far

from returning to the matrimonial domicile, has even refused to acknowledge the receipt of his very polite and professional epistles. At this, the judge's patience is exhausted. He forthwith decrees a separation of the parties, and condemns her to pay all the costs of the proceedings, not forgetting a fee of one hundred dollars to Oily Gammon, attorney for the defendant, for his trouble in endeavoring to woo her back to the path of duty!! There is still, to be sure, a *locus penitentiae* for the wicked and obstinate woman. This is not a dissolution of the bonds of matrimony—it is only a separation from bed and board; and from the date of this judgment she has two years for repentance, and endeavors to find forgiveness for her offences, and a reconciliation with her injured master. Should she fail in this, (and it is for her husband to decide whether she shall fail or not, for there is no power to compel him to become *reconciled*, against his will, *in that manner* which it has been decided to be within the intention of the law,) then, at the expiration of that time, a divorce *a vinculo matrimonii* is decreed, as a matter of course, upon the mere filing of the petition, setting forth the previous judgment, and that no reconciliation has been had.

* How different—how lamentably different is all this from the well-established policy of the common law, to preserve inviolable the sacred relation of husband and wife!—to impress upon society the solemn and indissoluble character of that contract which lies at the foundation of the well-being of a community; to erect about the conjugal relation barriers which may not be thrown down, nor easily overleaped; and, by the imposition of a salutary restraint, to teach and enforce the performance of the social duties. Compare the policy of the civil law, as evinced by the articles of the code, with that announced by Lord Stowell, when presiding in the Ecclesiastical Court of England. "The policy of our law," (says that profound master of this branch of jurisprudence,) "is not that limited humanity which looks only at individuals: it is that real and extended humanity which regards the general interests of mankind. If it were once understood that, upon mutual disgust, married persons might be legally separated, many persons who now pass through the world with mutual comfort, with attention to their common offspring, and to the moral order of civil society, might have been, at this moment, living in a state of mental unkindness—of estrangement from their children, and in a state of the most licentious and unreserved immorality. In this case, as in many other, the happiness of some individuals must be sacrificed to the general and greater good. When people understand that they *must* live together, they learn to soften, by mutual accommodation, that yoke which they know they cannot break. They *become* good husbands and wives, from the necessity of *remaining* husbands and wives; for necessity is a powerful master in teaching the duties it imposes." *

It is gratifying to turn from this branch of the subject to that, the consideration of which was the particular design of this article—viz: the provisions of the civil law upon the rights and duties of husband and wife, on the subject matter of property.

It cannot be expected that a cursory review of this nature should enter at any great length into the details of a system which constitutes so large a portion of the civil code. Some of the general principles of that system

* Evans vs. Evans, 1 Consistory Rep., 33.

only can be noticed, by which the reader will perceive the fundamental differences between the civil and common law of this domestic relation.

The civil code regulates the conjugal association, in relation to property, in the absence of particular agreements, which the parties are at liberty to stipulate as they please, provided the stipulations be not contrary to good morals; be not in contravention of the legal order of descents in what concerns the inheritance of their children or posterity, or of their children as between themselves; and provided that such stipulations be made by an act before a notary and two witnesses.

The property of married persons, by the civil code, is divided into separate property and common property.

Separate property is that which either party brings in marriage, or during the marriage acquires by inheritance or donation to him or her particularly.

Common property is that which is acquired by the parties during marriage, in any other manner than by inheritance or donation.

The separate property of the wife is divided into *dotal* and *extra-dotal*. Dotal property is the dowry, or marriage portion, and consists of the effects which the wife brings the husband, to assist him in bearing the expenses of the marriage establishment. The extra-dotal property consists of the paraphernalia of the wife, which form no part of the dowry;—this is called the paraphernal property.

And first, as to the common property. Every marriage contracted in Louisiana superinduces a partnership or "community of acquets and gains" between the parties, if there be no stipulation to the contrary; and the same partnership in property exists by law between persons going there to reside who were married elsewhere, with respect to property acquired during their residence. Of this partnership, the husband is the head and administrator; but his disposition of the moveables or immoveables of the community is restrained within certain legal limitations. As in any other partnership, the debts contracted during marriage enter into the community acquets, and must be acquitted out of the common fund; while the debts of both husband and wife, anterior to the marriage, must be acquitted out of their own personal and individual effects.

Upon the dissolution of the marriage, by the death of either party, all the effects possessed by the husband and wife, reciprocally, are presumed to be community property, unless satisfactorily proved to be separate property; and upon such dissolution, the partnership property is divided into two equal portions, (the community debts being first paid,) between the survivor and the heirs of the deceased. If the wife be the survivor, she has the right of renouncing the community, if, during its existence, she took no active part in its administration. This renunciation must be made within a time limited, and with certain formalities. If not made, or if not made in good faith, or legally, judgment may be rendered against her as a partner; which can be satisfied from her individual, separate property, if the community property be insufficient.

As has been before stated, the partnership in property, of the husband and wife, exists in the absence of any agreement of the parties. It may be modified or limited by contract entered into with the solemnities required by law. In case it is stipulated that the partnership shall not exist, the wife preserves the exclusive and absolute control and administration of her moveable and immoveable property, and the free enjoyment of her

revenues. In case of such separation of property, each of the married persons contributes to the expenses of the matrimonial establishment in the manner fixed by the marriage contract; and, if no terms of contribution are there agreed upon, the wife contributes to the amount of one-half of her income.

Upon the decease of the husband or wife, his or her heirs, if of age, may demand the moiety of the community property belonging to the deceased. If they are under age, the survivor of the partnership, as the natural tutor or tutrix of the heirs, has the administration of the property during their minority; after which, he or she is liable to account for the faithful execution of the trust;—and, as security for faithful payment to the heirs of the full amount to which they are entitled, they have a tacit and legal mortgage upon the immoveable property of the tutor or tutrix.

If the wife be the survivor, and marry again, her second husband becomes co-tutor with her of the minor children of her deceased husband, if the advice of a "family meeting," duly called, in the manner prescribed by law, has been first obtained in the premises.

With regard to the separate property of the wife—and first, the paraphernal. All her property which is not declared to be brought in marriage by her—to be given her in consideration of the marriage, or to belong to her at the time of the marriage, is paraphernal. Of this property she has the sole administration, and may dispose of it as she pleases, of whatsoever it may consist. If she has allowed her husband to administer it, she may, at any time, withdraw it from his hands; and if, notwithstanding her opposition, he persists in its administration, he is accountable to her for all the fruits of the property as well those that exist as those that have been consumed. She has a legal mortgage upon the immoveable property of her husband, as security for the payment of whatsoever comes into his hands from such administration.

The dotal property or the dowry of the wife is her separate property, which she brings in marriage to assist in defraying the expenses of the establishment. Of this property, the husband has the administration. Whatsoever is declared by the marriage contract to belong to the wife, or to be given her on account of the marriage by other persons than the husband, is part of the dowry. During the marriage, dowry can neither be settled nor increased.

Of what the dowry may consist—by whom, and in what manner, it may be settled—how the parties are bound by whom the dowry is settled—when the interests of the dowry commence—how, by whom, and when the dowry may be recovered—are subjects provided for in great detail by the various articles of the code; but they may not be of sufficient interest to the general reader to justify the space which would be necessarily taken in their consideration.

The manner in which the restitution of the dowry and dotal effects of the wife is secured to her, is a subject of the greatest importance, as affecting the rights and interests of those who may become the creditors of the husband; and it is this subject to which the attention of the reader is particularly directed.

The 2,355th article of the civil code, provides that, "the wife has a legal mortgage on the immoveables, and a privilege on the moveables of her husband, to wit: 1st. For the restitution of her dowry, as well as for the replacing of her dotal effects which she brought at the time of her

marriage, and which were alienated by her husband—and this, from the time of the celebration of the marriage; 2d. For the restitution or replacing of the dotal effects which she acquired during the marriage, either by succession or donation, from the day when such succession devolved to her, or such donation began to have its effect." A *legal mortgage* is one which exists tacitly, without a written instrument, by mere operation of law.

The article 2,399, of the civil code, declares that "the wife may, during the marriage, petition against the husband for a separation of property, whenever her dowry is in danger, owing to the mismanagement of her husband, or otherwise, or when the disorder of his affairs induces her to believe that his estate may not be sufficient to meet her rights and claims."

Now, that the importance of these rights and privileges of married women, in Louisiana, may be fully appreciated by those who are, or may become creditors of their husbands, it may be well to *suppose a case* not only which *may* occur, but which is *very likely* to occur under the jurisprudence of that State. It would be hazarding little to say, that such cases are *by no means of rare occurrence*.

A young man, being about to enter into the bonds of matrimony, in New Orleans, resolves, at the same time, to go into commercial business in that city. The parents of his intended wife are *reputed* wealthy—how many such there are! The parties go before a notary public, and there a *marriage contract* is executed in due form of law. The intended wife brings to her future husband, as her dowry, which has been settled upon her, the sum of *twenty thousand dollars*. In the presence of the notary and the legal number of witnesses, this is actually paid into the hands of the future husband, as the wife's dowry. (It *may have been borrowed* for that purpose, for an hour or two, from some banker—but to prove this! *hoc opus est!*) All this is duly, and fully, and legally set forth by the notary in the marriage contract; the parties retire, and in due season the marriage is solemnized, and the husband goes into business. He goes North to purchase his goods—no man's credit is better than his—he has married a rich wife—she has brought him a handsome dowry—the marriage contract shows it—his credit is unlimited—his purchases are accordingly. But, poor fellow!—he soon becomes embarrassed. "His affairs are in disorder," owing to "his mismanagement, or otherwise," and the trembling wife "is *induced* to believe that his estate may not be sufficient to meet her rights and claims." She files her petition representing these facts—they are proved. The husband, poor fellow! does not deny them—he can't deny them—his conscience would not allow such a denial; and after due proceedings she obtains a judgment against him for a separation of property—for the twenty thousand dollars paid him as her dowry, which is in danger—and the payment of this judgment is *privileged*, as by article 2,355 of the code already cited, upon all the moveable and immoveable property of her husband; a privilege, which rides over all the claims of her husband's creditors—a privilege, which absorbs all the property which her husband has purchased at the North, and which is barely sufficient to meet "her rights and claims," and defray the costs of the proceedings—so *improvided* has the young man been in the *management* of his affairs! All that the creditors, in such case, would get for their judgment against the husband, would be a dear-bought knowledge of the civil law of husband and wife.

Art. V.—ORIGIN OF ATLANTIC OCEAN STEAM NAVIGATION.

TO THE EDITOR OF THE MERCHANTS' MAGAZINE, ETC.

In the Merchants' Magazine of December I notice some remarks upon the inscription on Capt. Roberts' monument, erected in Cork, with some observations upon the Savannah, and a letter, said to have been written by Mr. Rush, respecting a conversation with the captain of the Savannah.

As materials for history, it is important that facts should be directly recorded.

In the first place, it is not true that the Savannah was *built* as an ocean steamer.

In the second place, it is not true that she *ever did cross* the Atlantic by steam.

In the third place, it is not true that *she could cross* the Atlantic by steam—and therefore she has no claim to the credit of being the first steamer that crossed the Atlantic.

She was constructed with a view of selling her to the Emperor of Russia, for a coasting craft on the Baltic Sea, and in furtherance of that speculation proceeded from Savannah, touching at Liverpool, to St. Petersburg. When that enterprise failed of success, her career as a steam vessel terminated—therefore it is manifest that she was not *built* for an ocean steamer.

2d. Soon after her arrival at Liverpool, I happened to be in Liverpool myself, and went on board of her, examined the machinery, as well as the vessel, and was then informed that she steamed six or seven days, which corresponded with the length of her passage, and was necessary to try and prove the efficiency of her machinery. At that time I had not the slightest idea of navigating the ocean by steam, nor have we any evidence that such an idea was entertained or broached by the public. It is worthy of remark, that Mr. Rush's letter of 1845, stating what the *captain told him*, that the engine worked horizontally, is not true in fact. I saw it: it worked at an angle of about forty-five degrees with the horizon; and therefore the captain, or Mr. Rush, or both, are in error in this particular, and the error throws discredit upon the man's statement that she *steamed eighteen days*, which I suppose must require very strong faith to credit. At all events, it is admitted that she did not steam *across the Atlantic*.

3d. The Savannah, if my memory does not betray me, had three masts, was completely rigged as a sailing vessel, and of small capacity—and if the statement of the captain, as recorded by Mr. Rush, be true, that she was only two hundred tons burthen, it is apparent to any one acquainted with steam navigation, that she could not carry fuel enough to steam her half across the Atlantic; and therefore the argument that she was not constructed for an ocean steamer is perfectly conclusive, because it was impossible for her to perform that duty; and that fact must have been as well known by any engineer before her trial, as after. With the power of sails her engine was carried over the Atlantic, but with the power of steam on board, the engine could never carry the ship across. No pretension was made in Liverpool, or in any other quarter, at that time, that she was designed for an ocean steamer, or that she either did or could cross the Atlantic by steam—and this fact goes far to show the absurdity of the claim now attempted to be substantiated. She was no more an

ocean steamer than the coasting craft which surrounded her in Liverpool, and the only point of curiosity was, that she stood before the public as an *American coaster*, and not a *British*.

It was not until *the Sirius made the first steam voyage across the Atlantic*, and excited universal enthusiasm, that the pretensions of the *Savannah* were obtruded upon the public notice. At the time of the *Savannah's* voyage, and up to 1832, no practical idea of navigating the ocean by steam was entertained or promulgated; and even at the latter date it was scouted on both sides the Atlantic as a wild, visionary, moonshine enterprise. I apprehend no valid evidence can be produced to show that the navigation of the Atlantic by steam-power was ever contemplated or deemed practicable until 1832, when the project was first submitted to several eminent merchants of New York, and declined by them, with the ever memorable characteristic declaration, "Go back to London, and if you form a company there, and succeed in the enterprise, we will come in and join you." It was upon the strength of that assurance that the company, when formed in London, was called the British and American Steam Navigation Company—the design being to form a union of British and American steam-ships in one line. The commercial crisis in the United States frustrated that design.

Although the monumental epitaph of Capt. Roberts is a strong proof of domestic affection, yet, as a public record, it would be in danger of conveying erroneous impressions to the future historian, if he had no other evidence and no other material from which to construct his story for posterity.

Capt. Roberts was an able and scientific navigator, but had no part in originating and bringing into action the enterprise. On the contrary, he was wholly unknown to the directors of the company, until he was called upon to take command of the *Sirius*. These facts are too well known to be controverted. The *Sirius*, and the *Sirius* alone, solved the great commercial problem of navigating the ocean by steam-power; and so far as credit is due to the commander of the first steam-ship that ever crossed the Atlantic by steam, Capt. Roberts is undoubtedly entitled to that credit.

The true character and comprehensive results of ocean steam navigation were not disclosed, until the successful experiment of the *Sirius* drew aside the veil, and revealed the prospective advantages which hung upon the skirts of the future. The popular mind was in a vein to jeer and ridicule what was esteemed a chimerical and preposterous speculation, and by no means prepared for the triumph of a new system of navigation, which was to disperse the old. The prophetic current of the public sentiment was on the side of failure, and scarcely a man could be found whose doubts did not outweigh his expectations. Those who did not ridicule and sternly oppose every step of the undertaking, stood aloof—they lent no countenance or support to a *scheme*, as the Duke of Wellington called it, which, in his judgment, was calculated only to disturb the established usages of the country—although it pointed directly to extension of commerce, the augmentation of the naval force of the empire, and the wealth of nations.

I subjoin the note of the Duke of Wellington on this subject, because it is characteristic of the man, and because it shows, in a strong point of view, the light in which steam navigation was regarded at that time, by gentlemen of the highest standing:—

"F. M., (Field Marshal,) the Duke of Wellington, presents his compliments to Mr. Smith. The Duke has no leisure to receive the visits of gentlemen who have schemes in contemplation for the alteration of the public establishments.

JUNIUS SMITH, Esq."

The victory, therefore, achieved over so great a mass of prejudice, of coordinate interests and combined disparagement, was the more signal, seeing it was not gained by statesmen and politicians, by the wisdom of the learned, by the patronage of noble and aristocratical influence, by the stirring spirit of republican genius, or the preponderating weight of commercial opulence, more apt to follow than to lead. The domestic and foreign relations of the country, the post-office, the army and navy, the merchants and manufacturers—every man who had a country to defend, a letter to write, or a bale of goods to ship, turned, as if by an instinctive impulse, to the luminous prospect which brightened the horizon. Those who lectured the loudest, and demonstrated to the satisfaction of their listening auditors that it was impossible to navigate from Portsmouth to New York by steam-power, saw the result falsified their theories, and that no alternative was left but an absolute denial of the fact that they had ever made any such declarations—a denial confronted by the evidence of too many living witnesses to gain a moment's credit. The new and rapid means of international communication was fully appreciated. The attention of government was, for the first time, awakened to the practical importance of the new system of navigation, and the extent to which it must inevitably lead. The old mode of transporting the mails, by gunbrigs and private merchantmen, was to be displaced by the Cunard line. The Royal West India line, and projects for steam communication with the East Indies, by the way of Good Hope, subsequently abandoned for that of the Mediterranean, followed in close proximity.

Whilst this expression of public sentiment was in vigorous action in Great Britain, the continent of Europe was no less agitated by the revolution which had been achieved by individual efforts. The mighty sea of public opinion, which rolled its irresistible tide over the centre of commercial influence, was not restrained by its banks; but, bursting away from its primary limits, swept over the States of continental Europe with equal force. Kingdoms clapped their hands, and nations followed the train of events. France, Germany, and Belgium, in particular, since the ratification of peace upon the downfall of Napoleon, had been indefatigable in their struggles to establish manufactures, to introduce machinery, and to rival Great Britain in foreign and domestic markets. But they had much to learn. It was no easy matter to supersede England in her great and matured manufacturing establishments. The success of steam navigation appalled and held in check the growing enterprise of the continental States. It was manifest, that if merchandise could be transported to the American market in fifteen days, the comparatively slow movement of sailing ships, requiring forty or fifty days to accomplish the same thing, must inevitably forestall the American market, and leave the continental manufactures far behind her rivals in their commercial career.

France, strong in purpose, but weak in execution, planned and published a comprehensive synopsis, embracing some of the most prominent commercial ports in the West Indies, North and South America, as the basis of her commercial steam-marine. But the whole project gradually died away in the obscurity of night. Not a single ocean steamer was then, or

has been since, fitted out by France for commercial purposes. But she clearly recognized the power of steam as the means of strengthening her naval marine, and directed her whole force to build up a steam navy that would place her upon a more equal footing with her great rival. In this, for a short time, she succeeded, and shot ahead of Great Britain in the strength and power of her steam naval armament; but England, watchful of every movement, was not to be deluded or overreached by commercial pretensions—she saw the object, and applied her superior skill to the construction of larger and more numerous naval steamers, until she stood as much before France in steam as she had before in sailing power.

Belgium made an unsuccessful attempt to share in the advantages of steam commerce, which she did not want the sagacity to perceive—but she had neither genius, nor engineering skill, nor capital, adequate to so great an undertaking. It fell by its own gravity.

England had all three, and, rapidly extending her commercial marine, monopolized the steam commerce of the world. She still holds that monopoly. Not a seaport, foreign and colonial, that is not drawn within the scope of her steam navigation opportunities. Her commercial policy of seizing, adopting, and carrying out every invention and every improvement which the genius of man spreads before her, has placed her at the head of the commonwealth of nations. She upholds her supremacy by the best means of securing it, and compels, in a civil way, even Americans to come within the spreadings of her net-work.

The United States—what shall I say? I hardly dare trust myself to speak of my own country in reference to this subject.

We have the ability, the acquirements, and the means, in an eminent degree, to stand foremost in the race of competitors—but truth compels me to say, we want the enterprise even to place our name upon the list. The consequence is, the loss of a portion of our best trade, and the cheerless prospect that the remainder will soon follow. Foreigners have already engrossed almost the whole of the European importing business, and whatever profits were drawn from that source, are now cast into the lap of foreign manufacturers.

It is difficult to account for this extraordinary, apathetic, unnational delusion. It goes far to do away with the assumption of her commercial energy and progressive greatness; it rests upon the past and obscures the future. No more certain sign of declension in commercial vigor can be presented to the contemplation, than that of a nation falling back upon ancient usages, and throwing aside the improvements of the age. It is an anomaly in American history. It stands alone with a fearful augury. It seems to indicate a feebleness of purpose, the existence of which no one is willing to admit, and yet may find it hard to deny. The alacrity with which improvement in agriculture and manufactures are seized and appropriated, contrasts strongly with the rejection of improvements in foreign trade, that are, in the hands of others, undermining our national wealth. They—agriculture and commerce—ought to go hand in hand, as the interest of each is the interest of both.

Adventitious circumstances—as European wars, or short supplies of food—may give a temporary impetus to foreign commerce; but, as a general principle, superior tactics in navigation, as in all other things, must command and sustain an ascendancy in trade, and throw the less skilful and less enterprising into the rear of nations.

In 1839, I came out in the *British Queen* from London, the first voyage she made to New York; and with more assurance, perhaps, than the occasion would justify, informed my friends that, barring accidents, to which all new machinery is liable, I would dine at my house in Sydenham, eight miles from London, on the 15th of August. We sailed from Portsmouth on the 12th of July, and arrived at the port of New York, Saturday, the 27th of July. After discharging, coaling, and receiving cargo, we sailed for London in the afternoon of the 1st of August. On the 13th of August we took a pilot in the English Channel, passed the Needles at daylight on the 15th, and ran up to Portsmouth. The branch railroad thence to London not being then completed, we embarked on board a small steamer for Southampton, and arrived there in the time for the London train. At four o'clock in the afternoon we were in London, distributed the New York journals for the press, and reached my house at Sydenham at six o'clock precisely, the regular dining hour, not varying one minute from the time specified previous to sailing from Portsmouth on the 12th of July. I was absent from London thirty-two days.

This showed, in the first place, a voyage completed to the United States and back, in less time than the average passage of the best sailing ships. In the second place, that time was doubled by being abridged. Fifteen days in steam commerce was equal to thirty occupied in sailing. The toil of half a man's life was compressed into the other half; so that, in effect, if a man labored twenty-five years, he availed himself of fifty. In the third place, it showed that commercial capital employed in foreign trade, was, through the agency of steam, rendered capable of carrying on double the commerce that was then carried on, or that half the amount of capital employed would suffice for conducting the same amount of business. Millions were created, applicable to foreign or domestic trade, seeing that whatever portion of capital was relieved from one employment, was ready to be applied to another. Answers to letters written to the merchants of the United States a month before, were received in England and on the continent of Europe by the same ship. Not only Great Britain, but all Europe, was stirred from the foundations, and looked with intense interest to the grand revolution which was achieved. It was no longer a matter of doubt, or hypothetical speculation, but of undeniable evidence. The past was forgotten in present realization. Men looked forward to the prospective magnitude and practical importance of a new era in the affairs of nations—the approximation of States; the interchange of intellectual wealth; the extension of civilization; the facilities of commerce, and the concentration of our wide-spread race into one great Christian community. Everybody saw a fact was developed, fraught with portentous consequences to the political and social institutions of Europe. Indeed, the influence of mind is already distinctly seen, in the melioration of servitude, and the subdued tone of bigotry that tramples down the rights and the conscience of man.

The materials for thinking are accumulated, the activity of intellectual vigor strengthened, and the desire for the attainment of knowledge sharpened, in proportion to the facility of obtaining it. Thousands of cultivated and contemplative intellects saw, or thought they saw, in the signs of the times, traces of the approaching millennial period, when wars, and pestilence, and famine, shall cease to disturb the human family. Steam navigation, in conjunction with railroads, has given a mighty impetus to moral

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energy, which no previous period has ever witnessed, and which plainly indicates the onward movement of corresponding events. It is remarkable, and ought not to pass away unobserved, that the eternal Jehovah, in His inscrutable economy, has reserved these mighty engines of moral and civil instruction, until the establishment and extension of innumerable benevolent societies, bursting away the barriers of local and ethical distinctions, seemed to call for their development. History and experience teach us, that success in great undertakings is often the punishment of the projector. But that is a risk, which every man who loves his country better than himself, or the advancement of society more than his own, must take. The world is wont to do least for those who do most for the world. Contemporaries, as well as posterity, reap the harvest which others have sown; but the great end of Providence is answered, if the world be benefited.

Now, let any one of common sense ask himself the question, if all this effervescence of the public mind, which has been partially described, could have happened, if there had been any previous idea of the practicability of navigating the ocean by steam-power, much less if it had already been accomplished? Let him ask himself, if the pretence set up by the Savannah is not a manifest pretence, originating long after the death of the Savannah, and subsequent to the demonstration of a fact which gave birth to the assumption?

J. S.

Art. VI.—MINERAL RESOURCES OF MISSOURI.

MINERALOGICAL OBSERVATIONS IN THE STATE OF MISSOURI, MADE BY DR. LEWIS FEUCHTWANGER.*

For mineral wealth, very few of the United States can excel the State of Missouri; and, judging from the developments made within the last few years, this State bids fair to vie, in valuable minerals, with both hemispheres; for, with the exception of the two precious metals, the gold and platina, most of the important and useful minerals and ores have of late been discovered, and worked with the fullest advantage to the miner. According to their intrinsic value, the following mineral substances may be enumerated:—Lead, iron, copper, cobalt, silver, nickel, zinc, and calamine, manganese and wadd, coal, rock-salt, barytes, sand, and quartz, carbonate and sulphate of lime, alumine and potters' clay, fullers' earth, variegated marble and oolite, saltpetre, and specimens of antimony, tin, tungstate of iron and lead, and diamonds, jasper, chalcedony, and felspar; gold, also, is said to have been found.

I. LEAD.

Having visited the various mining districts in Jefferson, Washington, St. Francis, and Madison counties, and examined on my way the mines of Mammoth lode, of Mr. Valle and Mr. Perry, around the town of Potosi, and Mine la Motte, and obtained a specimen of lead from Mine à Joe, it became manifest to me that they afford ample room for a scientific and economical investigation; for although since their discovery (1715) lead

* Read before the New York Lyceum of Natural History.

has been dug out by the French settlers, yet it was never worked to advantage until the last ten or twelve years, since which time it has proved highly lucrative, and has assisted to develop other metallic veins; so that, at the present day, this State is capable of supplying almost the whole world with lead. The geologist will find that nearly all the metallic veins run from northeast to southwest, while the mineral beds or patches lie further west; that is, the same direction exists in all, beginning with the valuable mines on the Merrimac, (Virginia mines,) the Ridgwood's, the Mammoth, Perry's, Valle's, Mine à Joe, Mine la Motte, as far south as Perryville, all of which have regular veins, of six to eight inches in thickness, and from ten to twelve feet in width, while the extensive mining district around Potosi consists mostly in float mineral. In the first instance, shafts to the depth of one hundred and ninety feet have (Valle's) been dug, while in the latter, the mineral has never penetrated more than fifty feet.

For about seventy miles, the rocks and hills are very lofty, (as at Bol-due's and the Mammoth mines,) and abound in the crystalline quartz, the shape of which is quite characteristic in this part of the country, (at a distance of about sixty miles from St. Louis.) It is, throughout, a drusy quartz, very beautiful to look at, sometimes cellular and mammillary, or in the shape of cauliflowers, and attached to chalcedony, and varies in size from a few inches to many feet. The rocks, themselves, below the quartz, are composed of—1, the cliff limestone, a compact magnesia limestone, (equivalent to the Niagara limestone,) and—2, a white compact sandstone, (equivalent to the Potsdam sandstone of New York,) which is the geological position of the lead district. This cliff limestone contains no fossils, is amorphous, and contains about 50 per cent of lime, and 40 per cent of magnesia; but a chrombic, crystallized carbonate of lime, I have seen associated intimately with the lead at Valle's mine. In many places, where the sandstone and the cliff limestone do not accompany the lead, sulphate of barytes may be seen in great abundance, forming either the gangue, or the veinstone, and is not alone the guide for the miner in "prospecting," (a term used in discovering mineral locations,) being in many places intimately mixed with the lead ore; but also in several counties, such as in Jefferson and Washington, whole mountains and large surfaces are composed of the barytes, which, at some places, is of dark color and coated by oxide of iron, but again, in other places, forms large deposits of the very whitest semi-crystalline compact mineral, such as I have brought specimens of, and presented to the society from Jefferson county, being of a brilliant white color.

The lead found in this State, is either a carbonate, and passes under the name of *drybone*, or a sulphured, called, generally, galena, but here it passes by the name of *blue mineral*; the first is found in great quantities at Mine la Motte and Perry's mine, and the attention of the miner and smelter has only been drawn to it since the last ten years. It having always been considered a *tiff*, (a term used for either carbonate of lime, barytes, or flourspar,) it was thrown aside as worthless, until a German miner, who settled at Mine la Motte, bought up several millions of pounds for a trifle, and reduced it by means of a high blast furnace; from that time their eyes were opened, and it has attracted the attention ever since of all the miners in the State, and on account of yielding more lead than galena, (it yields 72 per cent pure metal,) it is now the principle material for smelting. The blue mineral, or galena, occurs mostly massive; but

in some mines, such as Perry's and at Potosi, it appears in cavities or fissures, and crystallized in the original form of a cube. I possess crystals of three inches in diameter, obtained among the patch mineral, for no crystals are obtained at any depth, nor in any regular vein, except at Rozier's mine at Perryville; the vein is four feet in thickness, and contains all the mineral in a crystalized state; this mine is situated at the most southern extremity of the lead district. The quality of the blue mineral, according to locality, varies in richness, which appears to diminish on going to the southeast, while it increases from the northwest. If we begin with the per centage of the lead from Wisconsin, it yields, according to Dr. Owen, 84 per cent; that from Potosi, yields from 70 to 80 per cent; that of Mine la Motte does not exceed 66 per cent. The difference of per centage affects, at the same time, its commercial value; for the lead smelters at Potosi pay \$18 for 1,000 pounds of the blue mineral, while those at Mine la Motte pay but \$10 for 1,000 pounds of the same mineral. Likewise, the difference in the quality is, according to the latitude, distinctly observable; for, at St. Louis, the Illinois lead was worth, while I was there, \$3 75 per 100 pounds; that from Potosi, \$3 50; and that from Mine la Motte, but \$3 37 per 100 pounds. The lead from the upper mines, which includes that from Potosi and neighborhood, stands generally highest, being of very soft and pure nature, while Valle's lead is known to be hard; which I can only attribute to its containing zinc, which is found intimately mixed, and which, probably, although in small portions, enters into its composition; while that from Mine la Motte is considered still more inferior, probably owing to some copper, which it more or less contains, and is carried over mechanically in smelting, and by that means deteriorates it. The drybone appears to be more abundant at Mine la Motte, for I perceived the same, heaped up and under operation, at nearly all the washing establishments. There are one hundred and fifty persons engaged here in digging the mineral; each miner is entitled by a lease to one lot of forty feet for each hand he employs. It is mostly found in patches of from forty to sixty feet, without any regular vein, and may at once discontinue: but when found in a thick stratum, it forms the upper crust of the blue mineral at about twenty feet from the surface, above the regular gangue of the cliff limestone, and not unfrequently in connection with the black oxyde of cobalt, which, again, forms the roof of the drybone. On examining one of the diggings, called the golden vein, I observed, for twelve feet from the surface, a red, ferruginous clay; the next twelve feet, an ochre, containing considerable manganese ore; and three feet farther, a calcareous chert, or green slate, between which, was a layer of about six inches in thickness of drybone, and below the slate a regular deposit, from three to four feet in thickness, of the blue mineral; below that an ochre of twelve feet thickness, and then another layer of the blue mineral, the bottom of which is again the cliff limestone, which forms invariably the receptacle of the blue mineral; the same limestone contains also copper ore, sulphuret of cobalt, and sulphuret of nickel.

There are yet a great many miles square belonging to the public lands which contain lead, and many a poor man, if hard pushed, goes out *prospecting* for lead, and has no difficulty in finding it. About six miles from Potosi, in Washington county, I perceived an immense area, containing barytes on the surface, and about one hundred pits from four to six feet deep, which were all excavated and the lead taken out from them. But

the lead mines are mostly owned by companies, or wealthy land-owners, or such persons as possess a furnace; they lease the mineral lands for a bonus of 10 per cent of the crude mineral. I perceived around Potosi a number of such lease patches, and on one, probably a rich spot, I saw a lock and key on the shaft, and a number of black and white men engaged in raising the ore upon their leases, which they hold as long as mineral can be produced. At Mine la Motte, however, the arrangement between the proprietors and lessees is altogether different. Here, the latter have to pay the 10 per cent from the metal, or any other mineral of a current commercial value, and no crude mineral is permitted to be taken off the premises. Of course this regulation has of late become very onerous; the various minerals discovered there, such as copper, nickel, sulphuret and oxyde of cobalt, either from want of materials or of means, have not been made as lucrative to the miner as they would be if they were allowed to export the ores to Europe.

Before the mineral is purchased or received at the furnace, it is properly washed and selected by means of the washing establishments or shaking apparatus, by which the ore is separated from the rock. Large troughs, or tubs, of about six feet square, contain large metallic sieves fitted in them, to which are attached some cranks that keep the square sieves shaking the ore while they dip them in the tubs containing water. In this operation, which lasts but fifteen minutes, all the minerals, if small enough, fall through, and are deposited on the bottom; the larger minerals remain in the sieves. In both, the rocky and other minerals, as well as the ore, will fall down according to gravity; the blue mineral will be deposited first, then the drybone, then the cobalt, and the lightest is the rock. After the mineral has been assorted, it is ready for disposal or for smelting, and no mineral is easier reduced than the ores of lead. The drybone is reduced in a shaft, or blast furnace; the air being thrown into the furnace by a fan-blower of a ten-horse power engine, and a small addition of the oxyde of iron, whereby the carbonic acid of the drybone is transferred to the iron, forming a carbonate of iron, and the lead runs out pure. The blue mineral is reduced in a Scottish, or short furnace, with the addition of charcoal and a little lime; and by means of a strong blast, after a few hours the metal is softened, and runs out in a large cauldron, from whence it is poured out in pigs of from 60 to 70 pounds. The slags from the lead contain still from 5 to 8 per cent, which are melted over in a slag furnace. The lead so obtained at Mine la Motte and other places in the State of Missouri, contains a small portion of silver, which has latterly attracted the attention of English capitalists, who have, within a short period, purchased more than 1,000,000 pounds of the lead, in pigs; and although 100 pounds of the lead contain but half an ounce of silver, have, nevertheless, extracted from that quantity 350 pounds of pure silver, equal to \$5,600, and reducing the value of the lead over half a cent per pound. After putting the lead in its former shape, it commands the same price as when first imported.

The process for extracting the silver, is called the crystallizing process, is very simple, and attended with little expense. It is performed in the following mode:—The argentiferous lead is melted in cast-iron pots; and, when perfectly fluid, the fire is removed, and the draught-holes closed tight. After a little while the lead mass is stirred by means of an iron bar. The lead is now forming into small crystals, which are all gradually removed

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by means of a ladle. This operation is continued till two-thirds of the lead according to the quantity of silver contained in the mixture, has been taken away. The silver is now remaining, and may be refined by the cupelling operation. The lead thus drawn off, contains but traces of silver mechanically adhering to the crystals of lead. For this proof of obtaining all and any quantity of silver contained in the lead, the loss of the latter is but 2 per cent.

The quantity of lead produced in the State of Missouri, is very considerable. Not less than 9,000,000 of pounds were, in 1846, brought to market; and if we consider that 3,000 pounds of pig lead are produced every eight hours, (as Mr. Perry assured me he produces in his furnace;) that twenty furnaces are capable of bringing such a quantity to market; while this State, in eight years, (from 1825 to 1832,) did not furnish over 5,000,000 of pounds, at the present price of lead, the above 9,000,000 are valued at \$315,000.

Art. VII.—THE LEAD REGION.

THE lead region of the Mississippi occupies not far from one hundred square miles. The two principal towns are Galena and Dubuque, which are both handsome and flourishing. The original possessors of this land were the Sac and Fox Indians, who used to sell to the white settlers on the frontier the ore which they often found upon the surface of their soil. The first white man who went into the mining business, (which was on a small scale,) was Dubuque. He was supposed to possess a cure for the bite of the rattlesnake. He became a great favorite with the Indians, and for a long time was the only man not of their blood whom they would suffer to live upon their soil. After his death, they placed him in a leaden coffin of their own manufacture, and buried him on the picturesque bluff which bears his name; and after this, they destroyed every vestige of his property.

In process of time, extravagant mineral stories were circulated throughout the country, and the general government purchased the Indian El Dorado of its possessors. The first man who went into the mining business at Galena, after the country had become our own, was Col. Richard M. Johnson. Since that time, thousands of people, on various occasions, have made and lost money in the mining business, which, from the very nature of the case, is in reality a perfect lottery. Lead—lead, is the burthen of everybody's song—and the quantities that are shipped to St. Louis are truly immense. But a man may dig until doomsday, without finding a *lead*, and consequently die a beggar—while another, in a few months will realize a fortune, upon which he is too apt to retire, and squander at the gaming table, so that you also soon find him an idler, and in want. One individual I have myself known, who came to Galena with \$500, and having labored with unceasing industry for about three years, and expended his little fortune, when I saw him, had not the means to purchase a loaf of bread, and was utterly without employment. Notwithstanding the liberal mining regulations of the government, the fates were against him, and he was compelled to give up his mineral dreams in despair. Another individual, whom I saw at Galena, was remarkably fortunate in his operations. A little more than a year ago he commenced

digging a certain hill-side, and the first thing he knew, his spade struck against a solid mass of ore. He was encouraged, and proceeded in his excavations, and, in the course of a single year, he sold a sufficient quantity of 80 per cent ore to amount to the sum of \$23,000. His mine is still yielding quite abundantly, and as it is probably the best in this region, I will describe it in a few words.

After descending a shaft of some eighty feet in depth, you find yourself in the centre of an immense cave, with chambers leading in various directions. The walls and ceilings are mostly of pure sand, excepting where an occasional solid mass of native lead glistens like silver, or gold, in the torch-light. Square blocks of the ore, weighing from half a pound to one hundred, all lie as accurately dovetailed together, as if placed by the hands of a master-mason. While looking upon these singular masses, I could hardly banish the thought from my mind, that we were in view of treasures that had been hidden here in those days when giants inhabited the world. When my curiosity was fully satisfied, I seized the rope, and with a palpitating heart passed upward out of the bowels of the earth into the pleasant sunshine.

JOURNAL OF MERCANTILE LAW.

PRINCIPAL AND FACTOR—CONSIGNMENT—ADVANCES—SALE.

In the Court of Common Pleas of England, June 11, and July 6, 1846. *Smart v. Sand.*

Where A. consigned goods to B., a factor, for "sale and return," and directed B. not to sell them below a certain price, B. being in advance on account of said goods, gave notice that if the advances made by him were not repaid, he would sell the goods to repay himself, and he did sell them accordingly below the price limited by A. *Held*, in action brought by A. to recover the amount at which the goods had been limited, that the factor had no right under the circumstances, to disobey the plaintiff's orders, and that he was liable for the balance.

This was an action of assumpsit, brought to recover of the defendant, a corn factor, the value of a cargo of wheat, consigned by the plaintiff to the defendant for sale. The declaration set out the consignment, and the order of the plaintiff not to sell below a certain price, and averred the violation of the order on the part of the defendant. The defendant pleaded that he was the factor of the plaintiff; that he was under advances to a large amount to the plaintiff, on account of said cargo of wheat; that while so, he gave notice to the plaintiff that these advances must be repaid, and if this was not done, defendant would repay himself for said advances out of the proceeds of said cargo, averring that the cargo was sold at the highest market price, and produced less than the amount advanced. For a further plea, the defendant pleaded that he had a lien as factor, on the cargo consigned to him, in respect to the advances he had made to plaintiff.

There were other pleas, not necessary to be inserted here, to show the grounds of the opinion of the court. To these pleas there was a general demurrer, assigning *inter alia* for cause, that if the defendants meant to insist that the advances gave them a subsequent authority to disobey the plaintiff's orders, such authority should have been pleaded as the result of an express agreement, and not have been left as an inference of law; and also, that the plea was an argumentative traverse of the promise, and amounted to the general issue.

In support of the demurrer, it was insisted, that as the factor's power of sale was not coupled with an interest, he had no right whatever to disobey the plain-

tiff's orders. The defendants may have a lien for their advances, yet this would not give them authority to sell.

On the other side, it was contended that, in certain cases, when the factor has made advances, after he has given notice to the principal, and those advances are not repaid, there is an implied authority in law to sell without the assent of the owner. To sustain this position, Story on Agency, 331. was cited and relied upon. The opinion of the Supreme Court of the United States in *Brown v. M'Gran*,* delivered by Mr. Justice Story, was also cited. It was contended also, that where advances have been made, the factor's power becomes enlarged, and the consignment becomes a security for the money advanced.

Coltman, J., delivered the judgment of the court.

Let us first inquire, what are the relative positions of a principal and factor for sale? From the mere relation of principal and factor, the latter derives authority to sell at such time, and for such prices, as he may, in the exercise of his discretion, think best for his employer; but if he receive the goods subject to any special instructions, he is bound to obey them, and the authority, whether general or special, is binding. This was not denied; but on the behalf of the defendants, it was contended, that where a factor has advanced money on goods consigned to him for sale, the authority to sell is irrevocable, because it would be coupled with an interest. That may be true; but it was incumbent on the defendants to maintain also, that on the failure of the principal to pay such advances within a reasonable time after demand, the authority of the factor was enlarged; and that he had an absolute right to sell at any time for the best price that can be obtained, without regard to the interests of the principal, and without regard to the nature of the authority originally given to him. No case was cited in which this point appears to have been decided in any English court. In *Warner v. M'Kay*, (1 Mee. & W., 591.) it was incidentally mentioned; and, as far as any opinion of the judges can be collected, from what passed, it would seem that Parke, B., thought that a factor might sell to repay himself advances, and that Lord Abinger was of a different opinion; and certainly there is nothing there decided that can be treated as an authority for our guidance in this case. But we were referred to a passage in Story's Law of Agency. In the chapter on the Right of Lien of Agents, he says, (s. 371.) "In certain cases, where he has made advances as a factor, it would seem to be clear that he may sell to repay those advances without the assent of the owner, (*invito domino*.) if the latter, after due notice of his intention to sell for the advances, does not repay him the amount." For this is cited a decision of the Supreme Court of Massachusetts, which refers to the case of *Pothonier v. Dawson*, (Holt's N. P., 383.) The latter was not an instance of goods placed in the hands of a factor for sale, but of a party in whose hands goods were deposited to secure the payment at the time agreed upon, of the money lent; in which case Gibbs, C. J., said, "Undoubtedly, as a general proposition, a right of lien gives no right to sell the goods; but when goods are deposited by way of security to indemnify a party against a loan of money, it is more than a pledge. The lender's rights are more extensive than such as accrue under an ordinary lien in the way of trade." And he proceeds to say, that "from the nature of the transaction, it might be inferred that the contract was, that if the borrower failed to repay the money, the lender might sell to repay himself." We were also referred to Story, on Bailments, chapter v., "On Pawns and Pledges," (§ 308,) where the rule of law is said to be, that if a pledge is not redeemed within the stipulated time, by a due performance of the contract, the pawnee may sell it in order to have his debt or indemnity."

But the relation of principal and factor, where money is advanced on goods consigned for sale, is not that of pawner and pawnee, as they are delivered for sale on account, and for the benefit of the principal, and not by way of security or indemnity against the loan, though they operate as such, the factor having a lien upon them, and upon their proceeds, when sold to the amount of the claim against the principal. The authority of factors, whether general or special, may

* 14 Peters, 480.

become irrevocable where advances have been made; but there is nothing in this transaction, from which such a contract as described by Gibbs, C. J., can be inferred; and the defendants were bound to prove a contract, if at any time the goods were to be forfeited, or the authority to sell enlarged, so as to enable the factors to sell at any time for the repayment of the advances, without reference to its being for the interest of the principal to sell at that time and for that price. Nor can we find any principle in law by which, independently of the contract, such authority is given. On these grounds, it appears to us, the third plea is bad in substance. It is unnecessary to consider whether the authority thus supposed to be given to the factor, is to be construed as an enlargement of his original authority by some rule of law, or as arising from some implied condition annexed to the original contract. In either case, it would be very doubtful whether they should not be treated as identical. The contract laid in the plea, therefore, sets up a defence which amounts to the general issue. For the reasons we have above given, we think the third plea is bad, and the other special pleas are open to the same objection; and our judgment must, accordingly, be for the plaintiff.*

Judgment for plaintiff.

COMMERCIAL CHRONICLE AND REVIEW.

COMMERCIAL LEGISLATION—THE SUB-TREASURY—SCARCITY OF AMERICAN COINS—IMPORTANCE OF A SOUND NATIONAL COINAGE—UNITED STATES GOVERNMENT STOCK PRICES—TREASURY NOTES—LEADING FEATURES OF THE BANKS OF BALTIMORE, BOSTON, NEW ORLEANS, AND NEW YORK—EXPORTS FROM THE PORT OF NEW YORK—PRICE OF FLOUR IN NEW YORK, AT THE CLOSE OF EACH MONTH—EXPORTS OF CERTAIN ARTICLES TO GREAT BRITAIN—RECEIPTS AND EXPORTS OF FLOUR AT NEW ORLEANS, BALTIMORE, PHILADELPHIA, AND NEW YORK, 1845, '46—RECEIPTS OF PRODUCE AT CLEVELAND, OHIO, IN 1841, '42, '43, '44, '45, '46—OHIO CANAL TOLLS 1842, '43, '44, '45, '46—SHIPMENTS OF FLOUR AND WHEAT, FROM MICHIGAN—RECEIPTS ON NEW YORK CANALS AT TIDE-WATER, ETC., ETC.

THE year 1847 has commenced its career under singular circumstances. The radical principles in relation to commercial legislation, which were, through the ascendancy of the Democratic party, forced upon Congress, have been put in practical operation, and mercantile affairs have been slowly accommodating themselves to the new state of things. The position of the foreign market has been such as to promote external commerce, and the reduced tariff, which came into operation December 1, 1846, has favored the entry of a larger quantity of goods in return for enhanced exports. This state of affairs naturally produced a larger revenue to the government at a time when the Independent Treasury law required the collection of that revenue to be made in specie only; and the natural aversion of all classes, the mercantile, particularly, to innovation, was heightened by the extent of the operation of the Treasury Department under the new law. The Sub (or Independent) Treasury law required, after the 1st January, 1847, the receipt of specie, or government liabilities only, in payment of government dues. Had there been none of the latter in circulation, specie would have been required for the whole amount of duties. The law of July, 1846, authorized a loan of \$10,000,000, either in Treasury notes or a ten years' stock. Of this amount, one-half, or \$5,000,000, was issued in the shape of Treasury notes, bearing in-

* The above case is taken from a number of the "Jurist," a legal periodical published in London. It is gratifying to the American lawyer, to find Judge Story's opinions frequently cited with great approbation in the argument of cases reported in this journal. We are also pleased to see that the intrinsic merits of Mr. Phillips' Treatise on Insurance, have made his book very respectable authority in Westminster Hall.—*Penn. Law Journal*.

terest one-tenth of one to five and two-fifths per cent; and in November, the balance of the loan was taken in a 6 per cent stock, at ten years, at a little over par. The advantage of borrowing on a stock, is, that it shoves the payment ahead, and makes the Treasury easy, as far as it goes, for the present. Notes, on the other hand, enter into the currency, and add to the circulating medium, at the moment of issue, instead of diminishing it; they, however, by returning to the Treasury rapidly, deprive the government of its present cash means. On the first of January, when the Treasury law came into operation, there were outstanding of these notes, \$3,933,250, and of old notes, \$377,531, making \$4,310,781. The notes were mostly in the hands of the banks, which had gradually bought them up, anticipating a demand for them, instead of specie, to meet custom-house dues. Accordingly, the payment into the custom-house appear to be in Treasury notes for large sums, and specie for small ones. The scarcity of American coins adds, however, greatly to the difficulty of counting and paying over specie by those unaccustomed to it; and many display their ill-temper by paying in small American coins—dimes and half-dimes—a process which requires great labor and considerable time. These are, however, the little vexations which must necessarily attend the first workings of a new system. The labor and apparent inconvenience which attends the first use, by the public, of specie in large sums, naturally makes the system that requires it, to a certain degree, unpopular. The condition in which the specie currency remains, is of itself evidence of the extreme necessity of some great struggle to correct it. The fact that, in the seventy-first year of our existence as a nation, the currency of the country, instead of national coins, consists almost altogether of foreign coinage depreciated 16 to 20 per cent, and productive of great evils, is sufficient evidence that there has been wrong management heretofore—that, through some neglect or misuse of its powers, Congress has failed to “regulate” the currency which commerce has furnished for the use of the country. A sound national coinage is of itself the only firm basis for a healthy credit system. With the channels of circulation well filled with national coin, a broader and sounder fabric of credits can be reared, than can possibly be the case when, as heretofore, the whole paper system has reposed on depreciated foreign coins packed for export; and a sparse circulation of worn and clipped pieces from foreign mints feebly co-operates with the credits of institution. The importance of this has frequently led to a general recoinage in England and France, where national pieces are no longer a legal tender, when worn below a certain weight. But a few years since, all the light gold coins of Great Britain was called in. To remedy existing evils, a great effort on the part of the people, as well as the government, is necessary; and the co-operation of a mint in New York seems to be indispensable. The demand of the government for a new loan of \$20,000,000, had the effect of inducing capitalists to husband their means in the hope of obtaining it on favorable terms, while takers of the loan of 1856 were induced to sell. The following is a table of quotations for United States government stocks, at various periods of the year:—

PRICES OF UNITED STATES GOVERNMENT STOCKS.

	January 1.	April 4.	December 1.	January 16.	January 22.
6 per cents, 1862,	108½ a 110	110½ a 110½	102 a 103	100 a 100½	101 a 101½
6 “ 1856,	— a —	— a —	100½ a 101	96½ a 97	98 a 98½
5 “ 1853,	100 a 100½	101½ a 102½	93½ a 93½	90 a 91½	91 a 92
Treasury notes, }	— a —	— a —	99½ a 100	99½ a 100	99½ a 100
1. bill to 5 2-5, }					

Just before the breaking out of the war, in May, stocks were in demand and rising. A 6 per cent stock, which was worth in April 110, would bring, January 16, but 97; while the Treasury notes bearing but a nominal interest, are in demand at par, as a currency for custom-house uses. The value of government securities has been depressed by their prospective abundance. The war has not, however, tended, in any degree, to check the operations of commerce, or materially interfere with financial or mercantile operations. The means adopted by Congress to raise the money required, partake closely of the nature of paper money, and have so far influenced the value of the stock, as to cause them to rise 2 per cent. The law of July, 1846, authorizing the issue of notes at a rate of interest not exceeding 6 per cent, made them redeemable within the year, and receivable for all government dues; and a new law authorizes the issue of \$23,000,000, in denomination as low as \$50. at a rate of interest not to exceed 6 per cent, and not to be sold under par, to be reimbursed in one or two years, and be fundable on presentation in a 6 per cent stock redeemable in twenty years. A peculiarity of the new law is, that it pledges the proceeds of the public lands for the redemption of the principal, and payment of the interest, on the new loan; and it is made the duty of the Secretary of the Treasury to apply any surplus receipts from the lands, above the amount of the interest, to the purchase of stock at the market value. The debt, including the loan of 1856, is about \$27,000,000, and the new loan of \$23,000,000 will make \$50,000,000, on which, the annual interest will amount to about \$3,000,000, which is near the sum of the proceeds of the public lands for last year. The progress of business will probably swell the ordinary revenues above the usual peace expenditure of the government, and the extent of the public income from all quarters will doubtless suffice to keep \$28,000,000 of Treasury notes at or near par, more especially that quantities will be taken up in internal exchanges, and most of the small denominations absorbed in private investments. Should they fall below par, they will always be worth the value of a United States 6 per cent stock, twenty years to run; and the provisions of the law, by appropriating the proceeds of the public lands for the payment of the interest and ultimate redemption of the stock, settles the vexed land question for at least twenty years to come. Large quantities of the public domain will be absorbed as military bounty lands. How far that will effect sales of land, is a problem for time to solve. The probability is, that it will not diminish them much, if any. The abundance of Treasury notes, and of small denominations will render nugatory the specie clause of the new Treasury law, and perhaps, as a matter of state policy, no plan could, at this juncture, have been better devised as a means of creating a demand for, and supporting, the government securities. Under the old law, Treasury notes were never resorted to for custom-house purposes, unless the discount on them was so great as to make the saving an object. Under the present law, *par* is readily given as a matter of convenience. It is obvious, however, that, unless the notes can be maintained at par, the ability of the government to pay them out ceases; and an abundant issue may suddenly result in an absolute loss of revenue, the receipts being all in notes too depreciated to be again put out. The notes assimilate very much to government paper money, and it is a trite saying, that such resorts are "strength in the beginning and weakness in the end." It is, however, true, that paper money is an admirable mode of imposing a war tax, and probably falls more equally on the whole people than in any other form.

The following table indicates the position of the banks of four leading cities at their latest returns, as compared with the same time last year:—

LEADING FEATURES OF THE BANKS OF FOUR CITIES, IN NOVEMBER.

1845.

	Loans.	Specie.	Circulation.	Deposits.
Baltimore.....	\$9,677,773	\$1,885,336	\$1,856,641	\$3,167,180
Boston.....	30,945,887	2,773,930	6,929,248	8,809,536
New Orleans.....	7,112,541	6,162,080	2,555,896	7,334,173
New York.....	44,163,470	8,074,030	6,419,013	27,159,115
Total.....	\$91,899,671	\$18,915,376	\$16,752,798	\$46,469,994

1846.

Baltimore.....	\$10,143,299	\$1,861,500	\$2,159,149	\$3,113,750
Boston.....	29,814,647	2,437,072	6,373,686	6,806,373
New Orleans.....	8,943,799	6,577,998	3,167,171	7,561,590
New York.....	38,533,810	7,113,070	6,192,514	22,812,755

Total, 1846.....	\$87,435,555	\$17,989,640	\$17,892,520	\$40,294,468
" 1845.....	91,899,671	18,915,376	16,752,798	46,469,994

Increase.....	.....	.....	\$1,139,722	.....
Decrease.....	\$4,464,116	\$925,736	.....	\$6,175,526

The general business of the Union has been progressing, and large sales, at advancing prices, have continued to characterise domestic produce. The English demand for food, arising, as is now pretty evident, not so much from a supply less than ordinary, but a consumption greater than usual, continues steady and active. The export of quantities from the port of New York, for a series of years, has been as follows:—

EXPORTS FROM THE PORT OF NEW YORK.

	1843.	1844.	1845.	1846.
Apples.....bbls.	15,016	13,463	14,439	15,888
Ashes, pots.....	43,041	40,532	46,724	29,914
Ashes, pearls.....	2,584	9,706	9,567	4,909
Beef.....	36,048	61,648	55,552	66,539
Beeswax.....cwt.	7,154	6,387	4,595	4,575
Brandy.....half pipes & casks	294	6,485	4,803	4,743
Butter.....firkins	48,034	28,761	28,884	44,209
Cassia.....mats	28,947	14,380	17,414	8,468
Candles, sperm.....boxes	11,856	10,383	10,559	14,460
Candles, tallow.....	23,326	27,791	36,637	37,519
Cheese.....casks	8,964	11,241	5,935	13,182
Cheese.....boxes	62,112	77,173	113,698	162,712
Clover seed.....tierces	1,561	3,519	6,477	6,186
Cocoa.....bags	13,071	7,304	5,637	4,573
Coffee.....	19,401	54,702	43,706	8,719
Cordage.....coils	2,559	3,805	3,993	2,557
Corn.....bush.	51,301	242,886	304,292	1,489,459
Corn meal.....hbds. and bbls.	28,715	36,650	28,650	113,659
Cotton.....bales	164,354	325,460	262,445	187,536
Cotton goods.....	30,435	21,930	22,323	33,905
Logwood.....tons	7,014	7,817	9,694	7,342
Fustic.....	1,281	779	1,145	806
Nicaragua.....	196	121	179	47
Cod, dry.....cwt.	40,559	42,653	36,694	30,943
Mackerel.....bbls.	3,859	2,276	4,485	6,943
Herring.....	5,893	6,467	4,602	4,624
Flaxseed.....tierces	4,131	3,924	14,586	5,616
Flour.....bbls.	274,881	347,249	469,520	1,193,428
Flour, rye.....	8,798	6,669	9,257	12,145

EXPORTS FROM THE PORT OF NEW YORK—CONTINUED.

	1843.	1844.	1845.	1846.
Gunpowder.....kegs	8,293	11,821	17,753	14,980
Hams and bacon.....cwt.	8,235	9,481	5,095	14,297
Hides.....No.	53,633	45,615	46,396	55,924
Hops.....bales	2,842	3,098	3,059	5,402
Lard.....kegs	188,687	198,094	84,819	209,024
Lead.....pigs	.....	.....	25,784	12,502
Shooks.....No.	23,769	29,322	35,844	44,870
Boards.....M.	4,748	5,688	9,188	4,254
Staves.....	3,239	4,619	7,365	5,670
Hoops.....	1,000	1,797	1,338	1,272
Shingles.....	1,761	2,423	2,200	1,936
Nails.....casks	9,248	7,857	8,797	8,655
Rosin.....bbls.	82,844	105,225	99,950	93,324
Spirits turpentine.....	1,702	2,127	4,112	12,539
Tar.....	35,374	26,049	31,983	27,032
Turpentine.....	202,049	207,908	237,252	147,930
Oil, whale.....galls.	2,567,916	2,368,966	3,117,984	1,001,266
Oil, sperm.....	471,563	380,332	900,244	601,274
Pepper.....bags	2,187	5,111	3,644	1,302
Pimento.....	5,247	3,305	9,993	3,672
Pork.....bbls.	48,962	90,772	76,481	82,363
Rice.....tierces	28,100	23,628	23,922	26,734
Rum.....bbls.	1,767	4,235	3,671	2,890
Soap.....boxes	.....	44,114	41,720	31,387
Gold.....\$	.....	1,875,526	1,047,670	821,898
Silver.....\$	.....	5,313,357	2,009,718	667,451
Sugar, refined.....cwt.	9,066	19,121	46,310	7,495
Tallow.....casks	.....	11,827	7,410	8,121
Tobacco.....hhds.	4,102	5,525	3,527	4,794
Tobacco.....bales	12,989	8,150	7,706	12,710
Tobacco.....kegs	11,799	15,487	20,954	8,348
Whalebone.....cwt.	14,521	13,668	24,431	15,858
Wheat.....bush.	44,885	58,282	304,654	1,477,356
Whiskey.....bbls.	70	736	1,038	2,202
Wool.....bales	64	106	3,120	1,690

The increase in many of these articles is very marked, and has given employment to a large amount of tonnage at very favorable rates and remunerative prices. The following is a table of the monthly exports and prices:—

EXPORTS FROM THE PORT OF NEW YORK MONTHLY, WITH THE PRICE OF FLOUR AT THE CLOSE OF EACH MONTH.

	1845.				1846.			
	Wheat.	Corn.	Flour.	Price.	Wheat.	Corn.	Flour.	Price.
January..	.....	13,370	13,316	4.87	46,591	112,607	69,613	5.62½
February..	.....	7,247	6,388	4.87½	9,276	201,220	41,153	5.50
March....	.....	18,703	14,656	4.75	25,813	10,581	37,152	5.50
April....	1,600	20,084	17,122	4.68	64,339	17,444	64,497	5.37
May.....	.....	6,672	24,881	4.62½	51,053	92,756	70,633	4.50
June.....	.....	7,190	27,351	4.68	125,816	95,089	131,027	4.06
July.....	3,902	4,702	21,495	4.31	100,780	26,259	102,550	4.18
August...	400	6,118	50,272	4.75½	99,664	7,231	77,586	4.00
Septemb'r.	13,302	6,647	60,616	4.62	151,765	117,949	86,895	5.00
October..	84,444	4,293	59,473	6.25	222,380	195,182	163,967	6.00
Novemb'r.	142,115	75,837	71,773	7.00	303,121	867,350	115,161	5.37
December.	58,991	133,429	102,277	5.75	276,758	245,791	232,894	5.62
	304,654	304,292	469,520		1,477,356	1,489,459	1,193,428	
Increase.	.....	.....	.....		1,172,702	1,185,167	723,908	

In order to show the exports to Great Britain from this port, for six months weekly, we append the following table:—

EXPORTS OF CERTAIN ARTICLES FROM NEW YORK TO GREAT BRITAIN, WEEKLY, WITH THE
TOTAL EXPORTS FROM THE PORT, FOR THE SAME TIME.

	Flour.	Wheat.	Corn.	Rye.	Barley.
July 9.....	49,117	50,137	6,541	17,029	....
16.....	13,653	....	4,836	....	....
23.....	11,937	25,310	....	....	....
29.....	10,130	21,460	....	....	....
Aug't 6.....	6,045	22,989	....	....	....
14.....	10,968	14,723	....	....	....
20.....	13,700	11,217	....	....	....
27.....	14,340	10,170	....	....	....
Sept'r 4.....	17,380	10,250	....	....	....
12.....	2,480	....	11,603	....	....
18.....	....	27,668	11,169	....	....
24.....	14,800	33,460	18,264	....	....
Oct'r 2.....	12,560	47,295	31,801	....	....
9.....	23,890	83,315	10,219	....	....
15.....	30,724	....	47,751	....	....
22.....	12,555	23,554	57,929	....	....
30.....	12,975	20,573	6,951	....	....
Nov'r 6.....	15,696	25,440	67,109	....	2,515
13.....	20,743	111,532	68,785	....	....
20.....	8,807	56,073	81,666	....	....
27.....	33,716	51,488	104,065	....	251
Dec'r 4.....	30,850	44,876	44,746	....	....
11.....	25,236	46,067	14,482	....	7,061
18.....	44,063	70,819	80,355	....	9,365
25.....	35,330	36,151	38,103	....	....
31.....	29,338	57,947	26,982	....	10,671
	500,733	902,524	733,257	17,029	29,863
Total.....	779,353	1,154,468	959,762	589,061	34,753
Total, '45, 6 mos..	365,909	303,054	231,026	24,233	47,649
	Oats.	Meal.	Whale oil.	Sperm.	Whalebone.
July 9.....	....	....	....	13,654	....
16.....	....	....	....	3,802	....
23.....	....	....	....	6,758	....
29.....	....	....	....	....	....
Aug't 6.....	....	....	....	....	....
14.....	....	....	....	6,546	....
20.....	....	....	....	....	....
27.....	....	....	....	....	....
Sept'r 4.....	....	1,000	31,466	35,105	....
12.....	....	250	....	12,712	....
18.....	....	1,900	....	21,913	....
24.....	....	....	....	11,947	....
Oct'r 2.....	....	685	....	7,905	....
9.....	....	106	....	18,542	....
15.....	....	597	....	3,613	....
22.....	....	....	....	....	19,533
30.....	....	....	....	9,337	18,760
Nov'r 6.....	....	1,459	2,922	32,850	28,986
13.....	....	3,499	....	13,636	25,901
20.....	17,000	....	....	42,018	16,462
27.....	....	4,432	....	....	6,582
Dec'r 4.....	....	1,196	8,083	....	....
11.....	....	....	24,296	....	9,648
18.....	3,398	2,741	6,671	....	....
25.....	3,630	6,936	31,222	40,297	61,905
31.....	....	5,835	....	12,332	....
	24,028	30,640	104,660	382,821	187,775
Total.....	89,096	54,658	589,257	330,590	1,024,900
Total, '45, 6 mos..	....	12,845	1,432,138	451,109	1,214,225

The English demand absorbed nearly all these quantities. The following is a comparative table of the quantities shipped to Great Britain, for the year ending June 30 :—

EXPORTS OF CERTAIN ARTICLES TO GREAT BRITAIN, FOR THE YEAR ENDING JUNE 30.

	Flour.	Wheat.	Corn.	Meal.	Wool.	Lead.
England.....	969,306	848,607	688,719	15,772	610,625	3,368,085
Scotland.....	37,078	57,349	78,026	642	....	....
Ireland.....	8,860	68,442	425,960	33,750	....	....
Total.....	1,015,244	974,398	1,192,702	50,164	610,625	3,368,085
1845.						
England.....	35,335	2,010	134,898	1	....	811,445
Scotland.....	20	....	....	....	....	....
Ireland.....	....	....	790	....	....	....
Total.....	35,355	2,010	135,688	1	....	811,445

The quantities of corn and meal sent to Ireland direct, have become important, and that, doubtless, will be an increasing trade. The following is a table of the receipts and exports of flour, at four leading ports, for the year ending Dec. 31 :—

FLOUR—BBLs.	RECEIPTS.		FOREIGN EXPORTS.	
	1845.	1846.	1845.	1846.
New Orleans.....	599,836	1,020,816	79,266	372,112
Baltimore.....	563,632	794,105	238,900	516,504
Philadelphia.....	475,449	753,252	201,956	364,812
New York.....	1,963,150	1,548,394	469,520	1,193,428
Total.....	3,602,076	5,116,167	989,642	2,446,656

The exports from New Orleans are to foreign ports other than Cuba. The large increase in exports has not sufficed, however, to sustain prices under the enhanced receipts, the free outlet having been restrained by lack of freights.

The inmost avenues of communication have felt the influence of the external demand. The following is a table of the receipts of produce at Cleveland, on the Ohio Canal, for a series of years :—

RECEIPTS OF PRODUCE AT CLEVELAND, VIA OHIO CANAL.

	1841.	1842.	1843.	1844.	1845.	1846.
Wheat .bush.	1,304,421	1,311,665	813,356	1,000,079	205,581	1,672,340
Flour .bbls.	441,425	492,711	577,869	511,710	352,732	368,355
Pork	29,794	52,272	13,177	36,653	19,948	42,996
Coal .bush.	478,370	466,844	387,834	560,842	886,880	893,806
Ashes .lbs.	100,111	584,851	1,082,733	1,399,694	1,060,973	660,983
Butter.....	1,403,280	1,115,056	1,008,387	1,206,935	1,087,184	1,341,333
Cheese.....	58,168	260,201	215,819	90,010	....	....
Bacon.....	1,881,271	1,267,245	1,926,666	1,722,628	863,911	1,494,821
Lard.....	961,161	1,311,185	1,649,835	1,546,365	722,734	1,073,444
Wool.....	107,805	199,803	391,138	848,916	961,982	970,709
Iron & nails..	3,905,417	3,172,872	7,008,140	6,945,746	9,122,822	11,527,908
Pig iron.....	968,160	1,924,386	2,891,551	2,103,740		
Corn .bush.	....	....	....	....	164,967	527,270

MERCHANDISE CLEARED AT CLEVELAND.

Salt .bbls.	59,773	49,456	44,310	79,579	52,501	58,952
Merc'dise .lbs.	15,164,747	10,091,803	12,822,725	11,843,265	10,886,708	10,796,129
Gypsum.....	1,532,129	1,789,422	2,964,955	2,429,720	1,711,753	1,116,578
Cheese.....	....	....	....	....	30,854	77,551

A curious item here, is the fact, that the receipts of cheese at Cleveland have ceased, and it is now shipped inland. It is observable, that the export of mer-

chandise, by canal, has declined annually since 1843! The revenue on the Ohio canals is as follows:—

OHIO CANAL TOLLS.

	1842.	1843.	1844.	1845.	1846.
Ohio Canal....	\$387,442 22	\$324,259 81	\$343,710 99	\$252,199 01	\$328,018
Miami.....	58,460 34	68,640 09	77,844 25	74,319 78	116,665
" Extens'n	4,085 13	8,291 42	12,723 22	32,007 47	.....
Wabash & Erie	5,866 13	35,922 36	48,589 20	73,907 44	110,521
Muskingum...	15,355 27	22,349 98	29,384 64	38,461 26	34,037
Hocking.....	3,712 27	4,349 33	5,286 44	4,519 73	5,145
Walbonding...	610 17	640 32	1,976 78	1,183 82	1,090
Reserves.....	.....	.....	8,746 55	6,612 66	.....
Total.....	\$475,531 53	\$464,423 31	\$528,262 07	\$473,211 47	\$595,474

The expenses, &c., are about \$250,000.

The increase on the Wabash is mostly from Indiana business. The shipments from Michigan, for several years, have been as follows:—

SHIPMENTS FROM MICHIGAN.

	TOLÉDO.		MONROE.		DETROIT.	
	Flour.	Wheat.	Flour.	Wheat.	Flour.	Wheat.
1842	37,280	110,730	9,310	79,455	180,210	98,923
1843	59,368	187,800	41,699	121,107	263,083	106,181
1844	38,070	38,548	.....	.....	296,170	112,352
1845	86,382	565,711	67,369	218,906	225,431	230,608
1846	68,600	753,211	155,108	372,847	464,092	114,397

The crop of Michigan is estimated this year at 9,000,000 bushels, of which near 2,500,000 are accumulating in store for spring navigation. Of these large lake productions, considerable quantities seek the New York canals by way of Oswego, whence the clearance by canal is as follows:—

	Flour, bbls.	Wheat, bush.	Corn, bush.	Butter, lbs.	Cheese, lbs.	Lard, lbs.	Bacon, lbs.
1845	379,383	119,572	9,268	2,884,671	3,678,038	169,186	.....
1846	471,318	433,446	347,747	2,664,553	4,868,026	553,063	548,356

All these streamlets uniting upon the New York canals, have produced a great volume of trade, as expressed in the following table:—

CANALS.—RECEIPTS AT TIDE WATER.

	1844.	1845.	1846.
<i>Forest.</i>	Quantity.	Quantity.	Value.
Boards & Scantling...ft.	832,200	708,749	\$873,436
Furs and Peltry...lbs.	232,434,700	237,924,666	4,044,720
Shingles.....M.	78,125	72,120	284,390
Timber.....ft.	921,982	2,492,668	498,534
Staves.....lbs.	97,533,000	139,754,800	628,898
Wood.....cords	16,550	17,695	86,258
Ashes.....bbls.	80,646	69,668	1,393,860
<i>Agriculture.</i>			
Pork.....bbls.	63,646	45,153	571,637
Beef....	50,000	67,699	507,733
Bacon.....lbs.	.....	1,631,700	118,299
Cheese.....	26,674,500	27,543,861	1,921,000
Butter.....	22,596,300	21,825,455	3,055,564
Lard.....	.....	3,064,800	245,184
Wool.....	7,762,300	9,504,039	2,946,252
Hides.....	.....	293,009	36,277
Flour.....bbls.	2,222,204	2,517,250	14,021,081
Wheat.....bush.	1,262,249	1,620,033	1,941,869
			2,950,636

CANALS.—RECEIPTS AT TIDE WATER.—CONTINUED.

	1844.	1845.	1846.
	Quantity.	Quantity.	Value.
Rye.....bush.	62,289	157,438	\$111,002
Corn	17,861	35,808	21,479
Barley	818,472	1,137,917	671,371
Other grain.....	1,166,524	1,294,609	491,951
Bran and ship-stuff....	1,177,189	1,067,665	160,150
Peas and beans.....	21,176	66,175	70,145
Potatoes.....	18,263	145,569	58,076
Dried fruit.....lbs.	1,299,400	360,966	32,477
Cotton.....	79,600	66,800	5,177
Tobacco.....	318,900	670,900	80,508
Clover and grass-seed..	4,594,800	3,161,200	221,284
Flax-seed.....	3,114,000	8,303,960	166,076
Hops	1,319,700	874,200	157,356
<i>Manufactures.</i>			
Domestic spirits...galls.	1,191,317	1,558,601	444,809
Leather.....lbs.	3,909,000	15,363,925	2,765,507
Furniture.....	2,177,400	2,561,624	256,162
Bar and pig lead.....	41,800	223,500	8,940
Pig iron.....	6,422,600	8,031,218	140,546
Bloom and bar iron....	.....	.....	10,892,243
Iron ware.....	944,900	4,665,398	156,615
Domestic woollens....	867,200	1,407,529	1,900,029
Domestic cottons.....	1,584,600	1,879,446	532,628
Salt.....lbs.	175,013	173,968	147,023
Merchandise.....	492,300	505,708	88,497
<i>Other Articles.</i>			
Stone, lime & clay...lbs.	50,159,800	55,344,593	83,016
Gypsum.....	1,801,800	12,263,800	27,666
Mineral coal.....	18,480,700	47,798,300	119,406
Sundries	54,722,400	83,237,259	3,329,490
<i>Aggregates.</i>			
Forest.....tons	545,202	607,930	7,759,596
Agriculture.....	383,363	447,627	27,612,291
Manufactures.....	39,957	49,812	6,432,259
Merchandise.....	246	253	88,497
Other articles.....	62,625	99,321	3,559,658
Total.....	1,031,395	1,204,943	45,452,321
			1,362,319
			51,105,256

This volume of produce has kept the business of the canals in great activity. The total business of the canals has been, for several years, as follows :—

	Tons.	Value.	Tolls.
1839.....	1,435,713	\$73,399,764	\$1,616,382
1840.....	1,416,046	63,303,892	1,775,747
1841.....	1,521,661	92,202,929	2,034,882
1842.....	1,236,931	60,016,608	1,749,196
1843.....	1,513,439	76,276,909	2,081,590
1844.....	1,816,586	90,921,152	2,446,374
1845.....	1,977,565	100,624,859	2,646,181
1846.....	2,150,144	115,732,780	2,758,249

A large portion of this increase of tonnage, it will be seen, is in vegetable food, of that description which has formed so large a proportion of the increased shipments to England. The following is a table of the value of certain articles of produce, delivered on the New York canals, and of the same articles shipped to Great Britain, and the total shipments from the United States :—

	1845.			1846.		
	Received on canals.	Export'd to G. Britain.	Total from U. States.	Received on canals.	Export'd to G. Britain.	Total from U. States.
Beef tallow.....	250,000	777,906	1,810,551	864,800	1,354,341	2,474,208
Pork, bacon, &c.	572,814	648,705	8,286,479	1,589,772	768,266	3,883,884
Butter & cheese.	4,050,634	388,647	758,829	6,065,170	531,085	1,063,087
Wheat.....	1,211,759	20,160	500,400	3,366,141	1,056,325	1,681,975
Flour.....	9,999,918	745,436	6,759,488	15,470,271	5,186,677	11,668,669
Corn.....	8,931	43,893	404,008	1,126,854	797,176	1,186,663
Meal.....	.....	102	641,029	.....	190,073	945,081
Rye and oats...	43,506	8,996	183,477	232,304	142,694	638,222
Hops.....	171,561	.....	.....	185,955	10,917	41,693
	16,809,123	2,568,845	14,244,261	25,421,267	10,087,554	23,583,482

Increase..... 12,112,144 7,463,709 9,339,221

Seventy-five per cent of the amount of the increased receipts of the canals was exported from the Union; and that the remainder was in excess of the home wants, is evident, from the fact that prices are less than at the same period of last year.

The nature of the trade is such now as to warrant anticipations of a rapid increase; and, from the fact of the high freights and possibly diminishing quantity of cotton to be exported, greater facilities for transportation may be looked for. Such a result will allow of greater remuneration to growers. The prices of cotton continue to advance; and while those planters who have entirely lost their crops will suffer, by those who have a fair supply, as is the case in the Atlantic States, a most profitable year will doubtless be experienced. The general movement is such as to lay the foundation of a large future trade. Thus far the spring trade has opened fairly.

To ship-building, particularly, a great impulse has been imparted by the growth of the export trade, and the consequent high freights which have been obtained during the past year for transportation of produce, while the low tariff holds out greater prospects of return freights. Up to the 22d January, the arrival of dutiable goods at the port of New York was \$4,610,997, against \$2,428,691 in the same period last year, being nearly 100 per cent. As a consequence, the duties have been \$1,201,830, against \$745,100; presenting the fact, that the duties under the new tariff average 4 per cent only less than under the old—that is to say, the duties this year are 26 per cent against 30½ last year. The prospect of an improved business in the spring and fall, has induced great confidence among importers. The Secretary of the Treasury has, with the view to facilitate business in the warehouse, appointed Mr. D. H. Barhydt as a register of goods warehoused, with the view to issue certificates of deposit on goods placed in bond, specifying the quantity, packages, and value. These certificates may be available in the market to small capitalists, as security in procuring discounts, inasmuch as that their return is necessary to the release of the goods they represent. By these means, the importer of small capital can command on these warrants discounts, and they will become the best possible description of security for loans; or the goods may be sold outright, as securely and satisfactorily by means of these warrants, as if the articles themselves were taken out of warehouse and exposed for sale. In fact, by such a warrant, the importer holds in his hand his goods, either for sale or discount, as securely, and as easily transferable as his dollars in bank are disposed of by check.

COMMERCIAL STATISTICS.

COMMERCE AND NAVIGATION OF NEW YORK,

FOR THE YEAR ENDING ON THE 30TH DECEMBER, 1846.

We commence this statement with an account of the value of the exports and imports of merchandise in each month of the year, as taken from the custom-house books. It will be seen that the total exports in 1846 were \$36,423,762, exceeding those of 1845 by \$3,532,100, and those of 1844 by \$1,795,322; which were larger than any former year:—

Months.	VALUE OF IMPORTS IN 1846.			VALUE OF EXPORTS IN 1846.			
	For. goods dutiable.	Do. free.	Specie.	For. goods dutiable.	Do. not dutiable.	Domestic goods.	Specie.
	\$	\$	\$	\$	\$	\$	\$
January....	4,842,884	376,905	43,221	124,575	36,857	1,939,412	21,762
February...	4,177,952	474,360	96,779	120,355	52,248	1,673,242	126,700
March.....	8,657,793	1,092,476	62,225	122,072	66,216	1,463,529	257,781
April.....	4,105,393	2,228,878	106,544	195,518	114,927	1,998,736	519,599
May.....	4,160,360	1,300,751	27,286	208,562	85,850	2,529,096	291,041
June.....	4,605,527	1,239,006	29,122	223,504	93,058	3,745,687	None.
July.....	5,411,595	729,235	54,879	122,403	40,414	2,876,015	80,463
August.....	7,585,427	826,815	44,882	167,772	39,484	2,413,782	57,589
September..	5,272,923	600,849	10,044	305,860	82,309	2,238,101	2,255
October....	2,738,997	991,449	69,809	296,240	74,199	3,354,142	70,350
November...	2,568,483	719,215	139,392	247,930	60,357	3,510,269	7,680
December...	4,279,813	537,496	61,346	118,345	65,876	4,211,300	None.
	58,406,847	11,117,435	745,529	2,223,136	811,795	31,953,611	1,435,220
	11,117,435					2,223,136	
	745,529					811,795	
						1,435,220	
Tot. imports, 70,269,811				Total exports, 36,423,762			

STATEMENT OF IMPORTS INTO THE PORT OF NEW YORK FOR 1845-46.

	1846.	1845.		1846.	1845.
Brandy.....half pipes	4,824	8,622	Molasses.....bbls.	23,557	33,127
q. c'sks & bbls.	4,047	7,286	Ol. oil.....casks	231	1,102
Coal.....tons	35,116	53,236	...bxs. & bask.	11,807	32,915
Cocoa.....bags	5,969	7,269	Pepper.....bags	21,245	16,579
Cochineal....ceroons	480	741	Pimento.....	7,066	20,782
Coffee.....bags	382,268	312,362	Rags.....bales	11,730	14,331
.....casks	289	62	Raisins.....casks	7,962	11,729
Cotton.....bales	322,456	356,749	.....boxes	354,732	304,642
Duck.....	1,659	1,193	.....drums	3,305	2,122
.....pieces	3,474	7,976	Rice.....tcs.	36,443	34,631
Earthen ware..crates			Rum.....puncheons	1,300	1,972
and casks.....	29,417	32,537	Salt.....bush.	1,303,663	1,055,509
Figs.....drums	35,893	140,747	Saltpetre.....bags	9,295	18,599
Glass.....boxes	1,574	2,150	Sugar.....hhds.	67,238	88,268
Gin.....pipes	2,356	2,501	.....tcs.	577	1,626
Hemp.....bales	43,623	51,009	.....bbls.	7,242	17,039
.....tons	145	730	.....bxs.	85,744	22,958
Hides.....bales	694	768	.....bags	37,652	38,771
.....No.	566,446	703,282	Tobacco.....hhds.	17,674	8,998
Iron, bar.....tons	15,390	19,597	..bales & cer.	14,916	17,191
pig.....	17,371	28,937	Wine..butts and pipes	1,289	883
sheet, hoop, &c..	49,864	55,484	hhds. & half do.	12,415	8,155
Indigo.....cases	997	2,069	qr. casks.....	41,691	27,361
.....ceroons	1,164	1,667	Ind. bbls.....	11,293	6,811
Lead.....pigs	293,796	385,214	boxes.....	19,911	10,692
Molasses.....hhds.	73,822	62,506	Wool.....bales	19,514	22,272
.....tierces	5,168	5,780			

FOREIGN ARRIVALS AT THE PORT OF NEW YORK.

Colonel THORNE, of the United States revenue service, furnishes the following list of arrivals at the port of New York, from all foreign countries, for the year ending December 31st, 1846:—

Nation.	Ships.	Barks.	Brigs.	Schrs.	Gallots.	St'mers.	Arm. vess.	Total.
American.....	475	277	584	284	....	....	....	1,620
British.....	48	50	198	78	....	6	....	380
Bremen.....	20	28	16	3	....	....	....	67
Swedish.....	2	9	29	1	....	....	....	41
Hamburgh.....	8	13	5	....	....	....	....	26
French.....	5	7	3	....	....	....	....	15
Norwegian.....	1	7	12	....	....	....	1	21
Dutch.....	3	8	4	....	3	....	2	20
Danish.....	4	2	9	1	....	....	....	16
Portuguese.....	....	1	7	8	....	....	....	16
Prussian.....	....	4	8	....	....	....	....	12
Austrian.....	2	....	6	1	....	....	....	9
Sardinian.....	1	2	6	1	....	....	....	10
Belgian.....	....	3	....	....	....	....	1	4
Russian.....	....	1	2	....	....	....	....	3
Brazilian.....	....	1	4	....	....	....	....	5
Genoese.....	....	....	1	....	....	....	....	1
Mexican.....	....	1	1	....	....	....	....	2
New Granada.....	....	2	1	2	....	....	....	5
Central America.....	....	....	....	1	....	....	....	1
Oldenburgh.....	....	....	2	....	....	....	....	2
Tuscany.....	1	....	....	....	....	....	....	1
Mecklenburgh.....	....	1	....	....	....	....	....	1
Spanish.....	....	1	....	2	....	1	....	4
Chilian.....	1	1	....	....	....	....	....	2
Peruvian.....	....	1	....	....	....	....	....	1
Venezuelian.....	....	....	1	....	....	....	....	1
Lubeck.....	....	....	1	....	....	....	....	1
Colombian.....	....	1	....	....	....	....	....	1
Haytien.....	....	1	....	....	....	....	....	1
Sicilian.....	....	3	1	....	....	....	....	4
Total.....	571	425	901	382	3	7	4	2,293

COASTWISE ARRIVALS AT NEW YORK, 1846.

Months.	Ships.	Barks.	Brigs.	Schrs.	Total.
January.....	11	9	43	317	375
February.....	17	11	44	284	356
March.....	26	25	45	379	475
April.....	35	11	39	515	600
May.....	28	14	42	339	423
June.....	13	14	51	355	433
July.....	18	19	39	349	425
August.....	14	6	44	189	253
September.....	13	10	40	255	318
October.....	25	11	45	335	416
November.....	22	12	33	225	297
December.....	38	27	50	177	292

Whole number as above..... 4,663

Which, added to the arrivals from foreign ports..... 2,289

Makes a total for the year of..... 6,952

Whole number last year..... 7,843

Decrease..... 891

NOTE.—In the above no sloops are included, which, if added to the many schooners from Virginia and Philadelphia with wood and coal, which are never boarded, owing to the remoteness of the points at which they come in, would make the number much greater.

COMPARATIVE VIEW OF ARRIVALS AND PASSENGERS IN DIFFERENT YEARS.

Years.	No. arrivals.	Pass'gers.	Years.	No. arrivals.	Pass'gers.
1840.....	1,953	62,797	1844.....	2,208	61,002
1841.....	2,118	57,337	1845.....	2,044	82,960
1842.....	1,960	74,949	1846.....	2,298	115,230
1843.....	1,882	46,302			

TOBACCO TRADE OF NEW YORK IN 1846.

A correspondent of the "Journal of Commerce" furnishes the following statement of the tobacco trade of New York for the year ending December 31st, 1846. It will, we doubt not, prove interesting to many of our readers:—

STATEMENT OF THE TOBACCO TRADE OF NEW YORK FOR THE YEAR 1846.

1846.	Kentucky.	Va. and N. C.	Ohio.	Md.
Delivered in January	326	0	0	0
" February	253	17	0	0
" March.....	451	16	0	1
" April.....	627	4	0	11
" May.....	640	25	0	0
" June.....	552	75	0	0
" July.....	344	121	9	4
" August.....	453	96	20	9
" September.....	602	196	3	3
" October.....	1,180	161	27	8
" November.....	1,270	170	12	0
" December.....	541	74	0	24
Total.....	7,238	955	71	60

STATEMENT—CONTINUED.

January 1, stock on hand.....	3,357	190	6	1
Received in January	250	40	0	6
" February	53	1	0	0
" March.....	202	0	0	7
" April.....	310	18	0	0
" May.....	409	56	0	0
" June.....	312	206	11	0
" July.....	664	227	16	13
" August.....	770	223	4	6
" September.....	1,184	267	17	6
" October.....	935	400	20	0
" November.....	287	71	1	33
" December.....	305	276	33	12
	9,058	1,975	108	84
	7,238	955	71	60
	1,820	1,020	37	24
Stock on hand 1st January, 1847				2,901

STATEMENT—CONTINUED.

	Ky.	Va. & N. C.	Ohio.	Md.	Total.
Stock on hand, January 1, 1844.....	6,128	195	3	0	6,396
" " 1845.....	3,985	326	0	10	4,321
" " 1846.....	3,357	171	18	9	3,555
" " 1847.....	1,820	1,020	37	24	2,901

It would seem, from the foregoing statement, that the tobacco trade of New York is in a rapid state of decline.

COMMERCIAL NAVIGATION OF GREAT BRITAIN.

ENTRIES AND CLEARANCES OF COLONIAL AND FOREIGN SHIPPING.

The following is a return of the number and tonnage of British shipping entered inwards at ports of the United Kingdom from British colonial ports, and cleared outwards therefrom to such ports, in each year, since 1820:—

	ENTERED INWARDS.		CLEARED OUTWARDS.	
	Ships.	Tonnage.	Ships.	Tonnage.
1821.....	2,532	656,213	2,698	663,145
1822.....	2,473	649,041	2,709	670,140
1823.....	2,772	723,113	2,751	702,628
1824.....	2,856	757,659	2,983	764,761
1825.....	3,014	810,478	3,086	808,711
1826.....	2,991	926,308	2,903	771,152
1827.....	2,564	711,313	2,779	735,180
1828.....	2,880	784,693	3,113	823,391
1829.....	2,974	829,727	3,092	819,148
1830.....	3,043	842,795	3,143	850,132
1831.....	3,104	870,869	3,234	884,295
1832.....	3,148	875,419	3,402	920,081
1833.....	3,286	912,441	3,433	906,501
1834.....	3,326	922,856	3,483	950,011
1835.....	3,633	1,040,091	3,573	1,012,076
1836.....	3,512	1,040,244	3,685	1,047,727
1837.....	3,534	1,078,681	3,446	1,013,967
1838.....	3,534	1,111,200	3,731	1,168,011
1839.....	3,698	1,162,684	3,865	1,187,147
1840.....	3,887	1,251,826	4,376	1,365,228
1841.....	4,160	1,364,517	4,352	1,383,760
1842.....	3,283	1,067,485	3,588	1,127,520
1843.....	3,909	1,304,236	4,161	1,357,129
1844.....	4,151	1,375,705	4,979	1,604,029
1845.....	5,685	1,895,529	5,046	1,706,835

The following is a return of the number and tonnage of British vessels entered inwards from ports of foreign powers in Europe, Asia, Africa, and America, respectively, and cleared outwards to such ports, in each year, since 1820:—

	ENTERED INWARDS.		CLEARED OUTWARDS.	
	Ships.	Tonnage.	Ships.	Tonnage.
1821.....	6,669	863,891	5,766	757,295
1822.....	6,857	930,282	5,768	800,091
1823.....	6,647	981,790	5,393	771,053
1824.....	6,844	941,447	5,553	811,595
1825.....	8,657	1,248,475	6,133	904,843
1826.....	7,451	1,027,862	6,152	881,048
1827.....	8,755	1,282,628	6,948	1,066,748
1828.....	8,437	1,205,983	7,331	1,039,045
1829.....	7,683	1,098,438	7,125	1,040,042
1830.....	8,306	1,219,949	7,707	1,156,463
1831.....	9,429	1,390,223	8,640	1,318,971
1832.....	8,012	1,185,425	7,895	1,205,031
1833.....	7,774	1,151,481	7,900	1,230,642
1834.....	8,197	1,228,864	8,015	1,223,949
1835.....	8,290	1,220,665	8,219	1,277,386
1836.....	8,579	1,334,285	8,532	1,368,822
1837.....	9,202	1,407,365	8,919	1,420,003
1838.....	9,866	1,525,331	10,004	1,600,755
1839.....	11,169	1,785,401	10,932	1,785,641
1840.....	11,139	1,782,216	10,997	1,803,478
1841.....	11,734	1,885,493	11,835	1,912,699
1842.....	12,760	2,047,882	12,830	2,103,414
1843.....	12,779	2,070,660	12,806	2,137,440
1844.....	13,082	2,112,006	12,837	2,122,742
1845.....	13,817	2,289,744	14,008	2,427,552

COMMERCE OF CHINA IN 1845-46.

We proceed to compile from our latest files of papers received from China, a comprehensive view of the commerce of the several ports, so far as it can be gathered from the official reports of British consuls residing in Canton, Shanghai, &c.

The following abstracts of trade under the British flag, at Canton and Shanghai, shows the immense, and, as compared with 1844, the fast growing discrepancy between the amount of British imports and exports, which, says the Chinese Mail of May 7, 1846, we leave to be accounted for by those who have hitherto maintained that China had not produce enough to satisfy its demand for foreign manufactures.

ABSTRACT OF TRADE UNDER BRITISH FLAGS, AT THE PORTS OF CANTON AND SHANGHAI, IN 1845, AS COMPARED WITH 1844.

	Imports.		Exports.		Increase in 1845.		Decrease.	
	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.
Canton.....	10,392,934	15,506,240	20,734,016	17,925,360		2,808,658	5,113,906	
Shanghai...	5,822,404	2,313,873	5,838,882	2,267,430	2,708,621	3,571,445		
	15,415,426	17,820,113	26,572,900	20,192,790	2,708,621	6,380,103	5,113,906	

Next to the English ranks the American trade; but as there are no published returns, except those by the British consul of Canton, we can only judge of the transactions at that port, which in value have increased very considerably. According to the official report of F. C. Magregor, the British consul, the United States imports at Canton are as follows:—

1844, in 57 vessels, of the burden of 23,273 tons.....	\$1,320,170
1845, in 83 " " " 38,658 "	2,478,048

Showing an increase in 1845, over 1844, of 26 vessels, and 15,385 tons; and in value more than 100 per cent, (\$1,157,178.)

The export trade of the Americans is equally remarkable with that of the import, as will be seen by the following exhibit:—

1844, in 49 vessels, of the burden of 21,600 tons.....	\$6,686,171
1845, in 85 " " " 37,959 "	7,979,834

Increase in exports \$1,293,663

Great Britain and the United States enjoy the largest portion of the Chinese trade; that of other foreign countries with China is comparatively insignificant; but as several European nations have only opened a direct commerce with China since the late war, it is impossible to say to what extent it may be carried, or how far they may rival the commerce of those countries who have been longer in the trade. The entire foreign trade for 1844 and 1845 is comprised in two short tables, a reference to which shows at a glance what progress has been made during the past year at the port of Canton; and we believe that, with the exception of the English and Americans, foreigners have almost confined their operations to that port. The following table, confined exclusively to Canton, shows the amount of trade at that port, under British, American, French, and other flags, during 1845, as compared with 1844:—

FOREIGN TRADE OF CANTON, DURING 1845, COMPARED WITH 1844.

Flag.	1845.		1844.		Increase in 1845.		Decrease.	
	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.
British.....	10,392,934	15,506,240	20,734,016	17,925,360		2,808,658	5,113,906	
American	2,478,468	1,320,170	7,979,864	6,686,171	1,157,878	1,293,693		
French.....	8,318	33,823	93,010	37,136		55,890	25,505	
Dutch.....	77,751	231,708	635,583	572,188		63,345	158,957	
Danish.....	19,871	51,990	141,199			141,199	32,119	
Swedish.....	114,817	18,384	179,615	158,688	66,588	25,927		
German.....	123,530	5,743	419,973	132,888	117,767	297,085		
Lorchas.....	825,060	614,824	219,596	7,522	210,286	212,074		
Others.....	22,482	60,517	163,688	9,002		154,686	38,035	
Total \$ a 4s. 4d.....	14,062,811	17,843,240	30,566,426	25,513,949	1,589,484	5,052,477	5,362,922	

The trade of Foo-chow-fon, for the year, is quite insignificant. The gross amount of import is £72,147 17s., of which £67,820 1s. 4d. was carried away by the ships which brought it, so that the actual sales of British goods were £4,327 15s. 8d.; the exports, in the aggregate, being £683 4s. 8d. The Americans appear to have been more successful at this port. They imported in three vessels goods amounting in value to £11,513 19s. 10d., of which £4,235 16s. 2d., from Hongkong, was probably on British account; and their exports were £776 5s.

The returns from Shanghai exhibit a great increase—though scarcely greater than was anticipated. The imports for 1845 are £1,082,207 against £501,835 the previous year; the exports, £1,259,091, against £487,528. In cotton goods the imports exceed those of Canton, the respective quantities being:—Shanghai, 1,283,875 pieces; Canton, 875,020. In 1845, Shanghai imported 426,563 pieces of cotton fabrics; there is, therefore, an increase on the year of upwards of 850,000 pieces.

It is matter of regret that the United States has not taken measures to procure, through its consuls, accurate statements of the trade, &c., of the several ports of China. This neglect should be remedied; almost all our information on the subject is derived from the pains-taking officials of the British government.

EXPORT OF TEAS FROM CHINA TO THE UNITED STATES,

From 30th June, 1845, to 1st July, 1846; with export of Silk and Sundries to the United States, in 41 vessels; derived from the "Chinese Repository."

1845.

Vessels.	Date.	Young hyson.	Hyson.	Hyson skin.	Twan- kay.	Gun- powder.	Impe- rial.
Airone	September 13,	55,478	.....	729	.....	18,081	10,761
Huntress	" 23,	.....	.....	.....	.....	2,400	5,366
Tonguin	October 24,	148,823	.....	.....	.....	12,465	8,080
Inca	November 13,	1,067	.....	25,732	.....	2,850	2,850
Panama	" 23,	341,260	18,076	61,018	47,608	20,722	23,233
Heber	" 30,	230,138	19,346	.....	.....	5,325	8,732
Howqua	" 30,	324,973	8,906	18,196	8,314	1,940	11,340
John Q. Adams	December 9,	321,831	14,950	26,293	93,411	27,311	20,045
Ann McKim	" 6,	152,597	17,067	.....	24,829	45,047	52,857
Mary Ellen	" 23,	153,481	8,140	62,131	63,645	9,449	7,112
Montreal	" 26,	381,305	42,503	36,811	.....	15,573	14,300
Horatio	" 27,	322,288	47,316	49,194	23,794	58,577	36,913
Clarendon	" 29,	433,479	51,765	108,605	.....	79,610	54,007
Lenox	" 30,	63,171	.....	.....	.....	.....	.....

1846.

Henry	January 2,	310,887	12,584	29,292	68,020	14,595	11,236
Montauk	" 7,	270,168	5,888	10,716	2,658	90,717	56,866
Eliza Ann	" 14,	210,720	11,005	31,285	.....	42,922	24,749
Cohota	" 14,	470,356	19,318	95,193	29,387	47,852	36,490
Leland	" 17,	230,635	19,053	.....	.....	69,985	41,201
Onelda	" 19,	186,625	77,392	24,662	89,030	100,749	67,556
Grafton	" 20,	52,597	.....	.....	.....	87,653	20,338
Rainbow	" 24,	260,702	68,910	20,359	30,657	59,305	41,551
Geneva	" 31,	177,767	44,376	.....	107,145	50,484	22,101
Ann Maria	February 6,	273,428	10,625	.....	9,168	32,719	17,662
Loochoo	" 22,	288,900	60,729	47,397	34,881	43,358	30,164
Natchez	" 25,	203,311	23,842	.....	77,500	24,570	15,129
Tartar	" 25,	165,882	47,929	52,908	75,897	33,449	27,770
Paul Jones	March 2,	404,268	48,081	.....	25,593	57,894	36,781
Medora	" 9,	191,184	29,556	3,427	68,456	11,088	7,171
Wissahickon	" 23,	24,203	4,358	6,953	.....	7,335	3,294
Lucas	" 30,	185,638	42,449	61,703	10,238	31,224	17,920
Helena	April 1,	373,151	28,698	33,661	100,679	24,343	29,576
Douglas	" 24,	241,418	7,645	11,422	42,947	18,719	16,332
Zenobia	" 28,	247,494	4,964	74,496	59,377	17,266	18,563
Albion	May 8,	192,370	18,545	32,401	.....	20,261	16,310
John G. Coster	" 15,	189,890	39,289	100,694	128,321	67,036	40,261
Jas. Boorman	June 1,	86,474	19,005	21,704	62,193	8,803	7,330
Akbar	" 21,	217,609	16,240	97,092	79,204	11,843	7,793
Candace	" 23,	59,517	.....	.....	75,156	5,021	5,860
T. W. Sears	" 27,	162,646	32,100	48,258	15,181	25,303	13,685
Total pounds...		8,633,731	905,566	.....	2,588,776	1,253,709	854,043
Season of 1844-45...	"	9,171,298	358,915	.....	2,654,859	941,065	674,978
" 1843-44...	"	6,800,419	539,794	.....	1,783,291	597,088	456,245

1845.

EXPORT OF TEAS—CONTINUED.

Vessels.	Souchong.	Powehong.	Pekoe.	Oolong.	Green.	Black.	Total.
Alcona.....	4,49	.....	.....	.....	84,999	4,49	89,848
Huntress.....	280	8,684	.....	.....	7,766	3,314	11,680
Tonquin.....	53,027	260	4,788	10,696	164,368	168,806	338,174
Inca.....	40,550	75,738	4,066	.....	33,129	190,554	153,483
Panama.....	96,561	11,237	.....	.....	506,917	101,798	608,715
Heber.....	33,574	43,269	.....	.....	283,541	78,843	362,384
Howqua.....	32,061	18,100	.....	25,730	368,674	75,891	444,365
John Q. Adams.....	80,956	37,613	16,940	7,493	503,841	143,010	646,851
Ann McKim.....	84,485	.....	.....	.....	262,997	84,485	347,462
Mary Ellen.....	5,897	20,457	.....	16,008	308,908	42,362	352,270
Montreal.....	23,417	55,543	.....	9,496	490,392	88,456	578,488
Horatio.....	17,701	8,718	.....	.....	540,082	26,419	566,501
Clarendon.....	38,359	27,244	.....	3,615	727,556	69,218	798,774
Lenox.....	55,604	6,868	.....	.....	63,171	62,472	125,643

1846.

Henry.....	.....	27,963	.....	.....	437,614	27,963	465,577
Montauk.....	.....	17,022	.....	.....	487,028	17,022	454,050
Eliza Ann.....	66,082	.....	.....	9,163	321,370	70,146	397,24
Cohota.....	82,070	20,386	.....	.....	689,591	102,456	792,047
Leland.....	2,890	.....	.....	26,542	366,879	29,432	396,311
Oneida.....	11,852	17,341	.....	5,304	496,814	34,497	530,811
Grafton.....	173,409	22,149	.....	31,948	110,588	228,306	338,894
Rainbow.....	71,779	12,105	.....	.....	481,284	83,884	565,168
Geneva.....	33,306	46,800	2,897	7,580	401,823	90,883	492,406
Ann Maria.....	150,019	2,910	.....	8,429	243,603	161,858	565,463
Lochmo.....	110,795	29,318	.....	35,267	503,429	175,380	689,809
Natchez.....	137,218	5,094	.....	.....	344,352	142,912	487,264
Tartar.....	57,008	36,530	.....	.....	402,735	92,538	496,273
Paul Jones.....	69,162	66,140	.....	.....	572,597	135,242	707,839
Medora.....	87,079	9,928	2,304	801	310,882	100,112	410,994
Wissahickon.....	60,063	11,635	.....	.....	46,078	71,638	117,716
Lucas.....	51,857	23,652	.....	.....	349,192	75,509	424,701
Helena.....	23,664	3,720	.....	.....	590,048	27,384	617,432
Douglas.....	131,623	32,039	.....	.....	338,543	163,662	502,205
Zenobia.....	3,874	10,991	.....	.....	421,559	14,865	436,424
Albion.....	4,791	.....	.....	.....	274,887	4,791	279,678
John G. Coster.....	275,488	25,260	.....	.....	565,491	300,848	866,339
Jas. Boorman.....	60,694	32,993	.....	.....	265,514	93,687	359,201
Akbar.....	309,276	82,791	4,429	6,483	426,780	402,979	829,759
Candace.....	181,066	45,942	.....	15,307	148,054	242,255	350,369
T. W. Sears.....	247,054	51,988	.....	.....	302,238	299,042	602,280
	3,064,160	946,878	35,485	220,294	14,238,825	4,266,867	18,542,692
	5,280,865	1,301,965	69,225	598,353	13,801,115	6,950,468	20,731,583
	3,133,133	799,622	60,178	132,594	10,131,837	4,125,527	14,257,364

Besides the above named 40 vessels, the Talbot sailed on the 22d July, with a cargo of drugs and sundries, making the aggregate despatches from China to the United States, 41 vessels, during the season; the Ann McKim was laden at Shanghai, and the Montauk took there a portion of her cargo. The Talbot, Huntress, and Lenox, touched at Manilla, to fill up.

We give below the following table, specifying the various articles exported to the United States:—

EXPORT OF SILK AND SUNDRIES TO THE UNITED STATES, ON THE ABOVE NAMED 41 VESSELS.

Pongees.....	pieces	54,004	Cassia.....	peculs	7,877
Handkerchiefs.....	"	50,975	Matting.....	rolls	23,533
Sarenets.....	"	6,167	Rhubarb.....	boxes	1,135
Senshaws.....	"	4,085	Sweetmeats.....	"	4,637
Satins.....	"	1,982	Vermillion.....	"	176
Damasks.....	"	321	Split rattans.....	bundles	1,068
Satin levantines.....	"	1,099	Pearl buttons.....	boxes	204
Crapes.....	"	199	Chinaaware.....	"	614
Crape shawls.....	"	132,987	Fire crackers.....	"	20,610
Crape scarfs.....	"	10,290	Aniseed star.....	"	159
Sewing silk.....	lbs.	630	Oil of cassia.....	"	154
Raw silk.....	boxes	436	Oil of anise.....	"	174
Grass cloth.....	"	698	Camphor.....	peculs	1,356
Fans and screens.....	"	1,168	Lacquered ware.....	boxes	877

JOURNAL OF MINING AND MANUFACTURES.

PENNSYLVANIA IRON TRADE, 1844-1846.

The following statement of the iron trade of Pennsylvania is derived from the Philadelphia "Commercial List:"—

The supplies of iron sent from the different mines of the State, by the various improvements, from the 1st of December, 1844, to the 30th November, 1845 and 1846, have been,—by the Chesapeake and Delaware Canal:—

	1846.	1845.
Pig iron.....lbs.	57,405,226	38,183,139
Wrought iron.....	18,669,843	8,103,667
Castings.....	5,918,897	6,336,969
Total.....	81,993,936	52,623,775

Or, 36,604 tons of 2,240 lbs.

Of the above amount there were received from the Susquehanna and Tide-water Canal:—

	1846.	1845.
Pig iron.....lbs.	50,247,556	23,476,562
Wrought iron.....	14,915,302	6,215,611
Blooms.....	4,352,369	5,192,356
Castings.....	386,129	857,907

The balance came from Port Deposit, and was brought down in arks, by the Delaware Canal, and taken off at Bristol:—

	1846.	1845.
Pig iron.....lbs.	42,764,493	34,450,094
Bar and sheet iron.....	106,389	1,553,899
Castings.....	428,588	580,420
Blooms.....	.....	1,000

By the Schuylkill Canal:—

	1846.	1845.
Pig and wrought iron.....lbs.	7,413,440	19,786,400
Nails.....	1,612,800	6,348,160

Total quantity brought down and carried up by the Reading Railroad:—

	1846.	1845.
Pig iron and castings.....lbs.	22,343,270	7,106,936
Bar and sheet.....	9,372,910	2,803,588
Blooms.....	2,459,060	1,217,254
Nails and spikes.....	7,251,670	2,990,356

By the Columbia Railroad:—

	1846.	1845.
Pig iron.....lbs.	2,115,500	48,400
Blooms.....	1,116,300	1,572,550
Bar and sheet.....	9,008,100	10,890,900
Castings.....	434,100	620,800
Nails and spikes.....	21,500	99,000

Received by the Norristown Railroad:—

	1846.	1845.
Pig, castings, and rolled.....lbs.	10,288,789	819,616
Nails.....	1,741,793	No return.

RECAPITULATION.

	Pig iron and castings, pounds.	Wrought, pounds.
Chesapeake and Delaware Canal.....	63,324,093	18,669,843
Delaware Canal.....	48,193,081	106,389
Schuylkill Canal.....	7,413,440	.....
Reading Railway.....	22,348,230	9,372,910
Columbia Railway.....	2,549,600	9,008,100
Norristown Railway.....	10,288,789	.....
Total.....	149,112,233	37,157,242
	Or 66,568 tons.	Or 15,588 tons.
	Nails and spikes, pounds.	Blooms, pounds.
Reading Railway.....	7,251,670	2,459,060
Norristown Railway.....	1,741,792	.....
Columbia Railway.....	21,500	7,251,670
Schuylkill Canal.....	1,612,800	.....
Tide-water Canal.....	.....	4,352,369
Total.....	10,627,772	14,063,099
	Equal to 101,217 kegs.	Or 6,278 tons.

THE COAL TRADE OF PENNSYLVANIA.

We are indebted to C. G. CHILDS, Esq., the editor of the Philadelphia "Commercial List," for the tabular statements and remarks which follow. Few men are more industrious in collecting statistics of trade; and the accuracy which marks the labors of Col. Childs, can scarcely be questioned:—

The coal trade of Pennsylvania is attracting, more and more, the attention of the country. No thinking person can contemplate its progress, without being deeply impressed with the importance to our Union, of the State in which such vast resources of fuel are found. Were Pennsylvania annihilated, with all her mountains of coal and iron, how melancholy would be the condition of her surviving confederates, in regard to these two great requisites of civilized life.

If the importance of the coal trade is inconceivably great, its progress has been astonishing. Anthracite coal was first used as fuel (on tide-water) in 1820, and the total supply then sent to market was 365 tons!—a quantity smaller than that now annually consumed by hundreds of single establishments. We now find a single iron manufacturing company in our State, consuming 60,000 tons of anthracite, and 100,000 bushels of bituminous coals, annually.

From being regarded as a doubtful article of combustion at all, anthracite coal has come to be largely used for domestic purposes, for the production of steam in manufacturing establishments, for propelling steamboats and railroad locomotives, and more recently for the manufacture of iron, for which purpose it is employed on an immense scale. In 1840 there were no anthracite furnaces in full and successful operation. There are now 40 furnaces in blast, many of them of the largest class. Within the last three years, 18 rolling mills have been erected, which consume hundreds of thousands of tons of coal annually. This branch of business, so important in a national view, is destined to increase rapidly, as the demand for railroad iron increases in almost every section of our country. It is only by collecting details and uniting them, that the extent and importance of the coal trade is made apparent. It has already more than trebled the coasting trade of Philadelphia, and pays annually a freight on the shipments coastwise from this port, of more than a million of dollars. If this trade is of so much importance in this period of its comparative infancy, what will it be in its full growth?

About the year 1837, a report was made to the government by Major Bache of the Topographical Engineers, on the subject of an artificial harbor or breakwater, at Cape May, in which he states, that the insurable interest created by the coal trade passing around Cape May alone, already amounts to more than twenty-two millions of dollars per annum, estimating merely the vessels in ballast coming after it, and the value of the vessel and cargo carrying it to the various ports at which it is wanted. Many of these vessels

bring us supplies from the ports they come from, at merely nominal freight, instead of ballast—plaster, fish, lumber, salt, and other articles required for consumption in the interior, which add materially to the resources of the canals and railroads.

In England, coal appears to have been first used as fuel about the close of the 12th century. In 1289, Henry III. granted a charter to the burgesses of Newcastle, to dig for coal; which is the first legal mention of the article on record. As early as 1140, we find among the *Leges Burgorum* an enactment giving special privileges to the in-bringers of fuel, which is described as being "wood, turves and peats." The English coal trade, which now amounts to forty millions of tons annually, may indicate to us something of what we have reason to predict in our future career.

Perhaps few persons have distinctly considered the aggregate expenditure in the improvements designed to facilitate the transportation of coal from our vast coal fields. Let us look at some definite statistical account of these operations:—

NAMES AND COST OF THE CANALS AND RAILROADS LEADING TO THE COAL MINES.

LEHIGH COAL REGION.

	Canals, E'r'ds. length. length.	Cost.
The Lehigh Navigation extends from Easton to Whitehaven, 71 miles; and thence to Stoddartsville, 16 miles, there is an improved navigation	87 ..	\$4,555,000
Whitehaven and Wilkesbarre Railroad, from Whitehaven to Wilkesbarre, with 3 inclined planes and 1 tunnel....	.. 20	1,350,000
Mauch Chunk Railroad, from Summit and Room Run Mines to Mauch Chunk, and back tracks.....	.. 36	600,000
Beaver Meadow Railroad, from the Beaver Meadows to landing on Lehigh Canal.....	.. 26	\$60,000
Hazleton Railroad, to Lehigh Canal.....	.. 10	120,000
Buck Mountain Railroad, to Lehigh Canal.....	.. 4	40,000
Summit Railroad.....	.. 2	20,000
Total Lehigh improvements.....	87 98	\$7,045,000

SCHUYLKILL REGION.

The Schuylkill Navigation commences at Philadelphia and terminates at Port Carbon, (including cost for enlarging to this time).....	108 ..	\$5,675,000
The Reading Railroad extends from Richmond to Mt. Carbon, with a branch from the Falls of Schuylkill to the Columbia Railroad, at Peters' Island, including cost of locomotives, cars, &c.....	.. 93	11,000,000
Little Schuylkill Railroad, between Port Clinton & Tamaqua, cost \$280,000, and new rails now laying, \$220,000. ....	.. 20	500,000
Mine Hill and Schuylkill Haven Railroad, cost \$480,000; new rails, and 7½ miles extension to Swatara, \$120,000. ....	.. 55	550,000
Danville & Pottsville Railroad, unfin'd, and only part in use. ....	.. 29½	680,000
Mount Carbon Railroad .....	.. 7	155,000
Mount Carbon and Port Carbon Railroad.....	.. 2½	120,000
Schuylkill Valley Railroad .....	.. 14	300,000
Mill Creek Railroad.....	.. 7	120,000
Railroads constructed by individuals—aggregate.....	.. 70	180,000
Railroads under ground in the mines .....	.. 60	75,000
Total Schuylkill.....	108 357	\$19,365,000

OTHER PLACES.

Lykens Valley Railroad, to Susquehanna Canal.....	.. 16	\$200,000
Wisconisco Canal, to Millersburgh, on Susquehanna.....	12 ..	70,000
Swatara Railroad, to Union Canal.....	.. 4	20,000
Lorberry Railroad.....	.. 4	20,000
Total other places	12 24	\$310,000

RECAPITULATION.

	Canals, length.	Railroads, length.	Cost.
Lehigh Improvements.....	87	98	\$7,045,000
Schuylkill.....	108	357	19,365,000
Other places.....	12	24	310,000
Total.....	207	479	\$26,720,000
To these must be added the Delaware and Hudson Canal, 108 miles long, and railroad 24 miles, cost			3,250,000
Morris Canal, 108 miles long, constructed to carry coal to N. York, cost..			4,000,000
Grand total.....			\$33,970,000

Total length of canals..... 417 miles. | Total length of railroads.... 503 miles.

The coal trade gives employment to a very great number of persons. Indeed, nearly all the cost of the article is the result of labor. In its locality, it is worth only from 25 to 50 cts. per ton; averaging 35 cts. per ton. But in all the operations connected with mining and transportation, a vast amount of labor is employed. We must take into account, not only the miners and the boatmen and the breakmen on the canals and railroads, and the hands on board the transporting vessels, and the cartmen at the places of delivery, but also the thousands employed at some time, in making the necessary railroads and canals, the locomotives and stationary engines, the boats, &c., &c.

The sums thus invested in providing avenues for the coal trade may be computed; but the enhanced value of lands, and the property which appears in smiling villages, where once roamed the panther and the bear, baffle all our attempts at calculation.

These exhibitions of the extent of the coal trade, and of its importance to the Union, lead us to ask whether this interest has not a very strong claim upon the government for protection and encouragement. If not, how could such a claim be conceived of as possible? What operations can be more intimately connected with the prime elements of national growth and power? What political wisdom can discern the propriety of withholding the protecting power of the government here, unless it be that which denies, altogether, the justice and policy of any restrictions on the disheartening competition of other nations, which is fitted to keep back our own enterprises for centuries?

The proximity of the Nova Scotia mines to the New England States—the immense capital of the British Mining Association, (the present holders of the original grant to the Duke of York,) and the facilities they possess for bringing their coal into this country, to the destruction of our own industry, seem to require some legislative enactment in behalf of this important trade.

As early as July, 1789, and soon after the adoption of the Federal Constitution, a law was passed laying a duty of 2 cents per bushel on imported coal. (See Pub. Doc., p. 72.) August 10th, 1790, the duty was increased to 3 cents per bushel. Again, on the 3d of May, 1792, the duty was increased to 4½, and on the 7th of June, 1794, to 5 cents per bushel. This duty was continued under all the party changes, until April 27th, 1816, when the duty was changed to 5 cents per heaped bushel. In 1824, May 26th, after our coal had begun to be useful, the duty on imported coal was increased to 6 cents per bushel, or \$1 50 per ton; Gen. Jackson, then a member of Congress, voting in favor of this duty. In 1842, the duty on imported coal was raised to \$1 75 per ton; but even with this check to its importation, some supplies were brought in, as will be seen by a subsequent statement taken from official documents. By the present tariff the duty is only about 45 cents per ton on board, and may be reduced to 35 cents.

It thus appears that Washington, Madison, Monroe, Adams and Jackson, gave their high sanction to the protection of the coal interests—an interest of the importance of which even those far-reaching minds must have formed a very inadequate idea. Of the use of coal in the production of steam, it is not easy to say what supposition and expectations it would be safe to pronounce extravagant. In an address lately delivered, a Mr. Pierpont indulged in the following illustration:—

“It required twenty thousand men twenty years to build one of the pyramids of Egypt. The same number of men might, by the aid of steam, accomplish as much work now in twenty-four hours. Cylindrical boilers are the seven-league boots of the country.”

In reference to the use of coal in the manufacture and working of iron, it is pertinent to quote the remarkable language of Mr. Loeke, in his Essay on the Understanding, where he says: “Were the use of iron lost among us, we should, in a few ages, be unavoidably reduced to the wants and ignorance of the ancient savage Americans.” And, whether we can fully subscribe to this sentiment or not, we cannot object to the beautiful declara-

tion of the same philosopher, that he who first made use of iron, "may be truly styled the father of arts, and author of plenty."

Our large table shows the comparative quantity of anthracite coal sent to market from the commencement of the trade in 1820 to the close of the past year. Nearly all the above returns are official, being obtained by us from the different regions. It will be seen they vary in several cases from the reports of the *Miners' Journal*, the only paper besides our own that has pretended to keep up original yearly statements of this important trade.

Anthracite coal was first used as fuel (on tide-water) in this country in 1820, when the total supply sent to market was only 365 tons. If we divide the 27 years that have elapsed since coal was first used, into three periods of nine years each, it will be seen that the total supply from all the mines in the first period, ending with the close of 1828, was 239,845 tons; second period, ending in 1837, 3,826,829 tons; third period, ending with 1846, 11,570,141 tons; showing the annual average receipts for the first nine years, to be 26,648 tons; second period, 454,534 tons; and third period, 1,285,571; from which it appears that the quantity consumed during the last nine years was nearly three times as large as during the preceding eighteen years.

Now, by way of contrast, let us take the total amount of capital invested in all the manufacturing establishments at Lowell, and see how it compares with the above expenditures. During a visit to that remarkable city last summer, we obtained a copy of the "Statistics of Lowell Manufactures for 1846." From it we learn the following particulars. The amount of capital invested in all the factories, including buildings, machinery, houses for the operatives, &c., is as follows:—

	Capital.		Capital.
Merrimack Man. Co.	\$2,000,000	Tremont Mills Man. Co.	\$600,000
Hamilton	1,200,000	Boott Cotton Mills.	1,200,000
Appleton	600,000	Massachusetts.	1,200,000
Lowell.	600,000	Lowell Machine Shop.	300,000
Middlesex.	750,000		
Suffolk.	600,000	Total capital	\$10,550,000
Lawrence.	1,500,000		

Thus, it will be seen, that the whole amount invested in all the manufactories at Lowell, is less than one-third of the sum actually expended in constructing avenues for bringing Pennsylvania coal to market. The annual shipments of coal coastwise from this port have been as follows:—

Years.		Tons.	Years.		Tons.
1822....	4 vessels, carrying	181	1830....	644 vessels, carrying	63,137
1823....	11 "	1,123	1831....	563 "	55,640
1824....	40 "	3,958	1832....	1,592 "	158,442
1825....	190 "	19,378	1833....	2,010 "	198,168
1826....	271 "	27,413	1834....	1,575 "	156,154
1827....	397 "	39,327	1835....	2,361 "	267,139
1828....	469 "	45,915	1836....	3,225 "	344,812
1829....	429 "	47,100			

During the subsequent nine years our returns are incomplete.

The following statement, showing the number and class of vessels which cleared with coal from the Delaware River, during the past year, will serve to illustrate the value of this branch of our business, in a commercial point of view. During the year 1846, there were cleared from Richmond, the depot of the Reading Railroad Company—

Ships	1	Steamboats.	14
Barks.	23	Barges	928
Brigs	341	Boats	1,150
Schooners	4,092		
Sloops	935	Total	7,485

The quantity of coal shipped in the above vessels was 892,464 tons.

There were also cleared from this city, and at Bristol, during the same period, laden with Lehigh coal, 1,468 vessels, exclusive of boats, carrying 181,792 tons of coal.

Total number of clearances from the port of Philadelphia in 1846, 8,953—all laden with coal, and carrying 1,074,255 tons, in addition to that shipped in boats from the Lehigh. The quantity of coal which has passed through the Delaware and Raritan Canal to New York has been as follows:—

1842	tons	171,754	1845	tons	372,072
1843		198,332	1846		339,924
1844		237,496			

PENNSYLVANIA ANTHRACITE COAL TRADE,

FROM ITS COMMENCEMENT, IN 1820, TO THE CLOSE OF 1846; SHOWING RECEIPTS FROM VARIOUS MINES, TOTAL SUPPLY, AND ANNUAL INCREASE OF THE TRADE.

Year.	Lehigh.	Beaver Meadow.	Hazleton.	Sugar Loaf.	Buck Moun'tn.	Sum't & W'sbarre.	Total Lehigh.	Schuykill.	Little Sch'kill.	Total Schuykill.	Lackawanna.	Pine Grove.	Shamokin.	Wyoming.	Total supply.	Annual increase & decrease.
1820	365	...	...	...	...	...	365	...	...	...	...	...	...	...	365	...
1821	1,078	...	...	...	...	...	1,078	...	...	...	...	...	...	...	1,078	708
1822	2,240	...	...	...	...	...	2,240	...	...	...	...	...	...	...	2,240	1,170
1823	5,828	...	...	...	...	...	5,828	...	...	...	...	...	...	...	5,828	3,588
1824	9,541	...	...	...	...	...	9,541	...	...	...	...	...	...	...	9,541	3,718
1825	28,393	...	...	...	...	...	28,393	6,500	...	6,500	...	...	...	...	34,893	25,352
1826	31,280	...	...	...	...	...	31,280	16,767	...	16,767	...	...	...	...	48,047	13,154
1827	32,074	...	...	...	...	...	32,074	31,360	...	31,360	...	...	...	...	63,434	15,387
1828	30,232	...	...	...	...	...	30,232	47,284	...	47,284	...	...	...	...	77,516	14,082
1829	25,110	...	...	...	...	...	25,110	79,972	...	79,972	7,000	...	...	...	112,083	34,567
1830	41,750	...	...	...	...	...	41,750	89,984	...	89,984	43,000	...	...	...	174,734	62,651
1831	40,966	...	...	...	...	...	40,966	81,854	...	81,854	54,000	...	...	...	176,820	2,086
1832	70,000	...	...	...	...	...	70,000	195,271	14,000	209,271	84,600	...	...	...	363,871	187,051
1833	123,000	...	...	...	...	...	123,000	212,971	40,000	252,971	111,777	...	...	...	487,748	123,877
1834	106,244	...	...	...	...	...	106,244	226,692	34,000	260,692	43,700	...	...	...	376,636	111,124
1835	131,250	...	...	...	...	...	131,250	298,508	41,000	339,508	98,845	...	...	...	596,608	119,967
1836	146,522	...	...	...	...	...	146,522	397,045	35,000	432,045	104,500	...	...	...	632,057	86,454
1837	192,320	38,617	...	...	...	...	225,937	492,152	31,000	523,152	114,387	17,000	...	...	881,476	198,419
1838	159,564	38,426	16,221	...	...	...	214,211	420,875	13,000	433,875	76,321	13,000	...	...	737,407	154,069
1839	142,071	38,429	7,350	...	...	...	221,850	433,608	9,000	442,608	122,300	20,639	11,930	...	819,328	81,921
1840	102,138	43,619	50,866	29,039	...	...	225,288	431,291	20,000	451,291	148,470	23,860	15,505	...	864,414	45,086
1841	78,164	*26,232	*21,263	*17,170	...	...	*142,828	394,699	40,000	434,699	192,280	17,653	21,463	...	808,913	55,501
1842	163,762	85,245	31,012	31,930	...	...	272,129	513,891	27,000	540,891	205,233	32,381	10,050	47,346	1,108,050	299,137
1843	188,825	54,729	44,579	26,814	2,844	...	267,734	639,428	81,000	720,428	227,605	22,905	9,900	57,740	1,236,312	148,262
1844	219,245	70,879	73,625	2,866	13,749	...	377,221	778,500	87,000	865,500	251,005	34,916	13,037	114,906	1,627,235	370,923
1845	257,740	77,227	70,266	1,843	23,914	...	429,159	1,007,424	76,000	1,083,424	266,072	47,928	9,900	178,401	2,014,888	387,653
1846	274,663	85,648	98,150	...	46,108	*17,773	522,297	1,145,533	91,000	1,236,533	318,000	56,139	12,572	188,003	2,333,594	318,705

* Great freshet, which injured the canal. † 54 tons by Tamaquand Company. § 109,653 from Room Run. ‡ Including 5,865 from Wilkesbarre.

The total number of arrivals at New York from foreign ports in 1846, was 2,293 vessels. Suppose these vessels to average 400 tons each, and the whole tonnage would amount to 917,200 tons. The number of vessels cleared from Philadelphia, laden with coal, during the same period, was 8,953 vessels, averaging 150 tons each—total tonnage of 1,342,950 tons, or upwards of 425,000 tons more than the whole tonnage arrived from foreign ports at New York.

As a nursery for seamen, the Pennsylvania coal commerce, even in its infancy, is entitled to consideration in a national point of view. There is no department of our commerce, if we except the whale fisheries, which gives employment to so many vessels, or to so great an aggregate tonnage, or which calls into service so many seamen. In any emergency which might arise in the defence of our extended and dangerous sea-coast, here would be found a body of hardy, bold and active men, trained for dangerous service, and equal, in the most important qualifications, to the best seamen in our national vessels. Great Britain has for many years fostered her coal trade, with a view to the rearing up of seamen to man her "wooden walls." Admiral Collingwood, and many others of her naval heroes, were trained on board British colliers.

It is not saying too much to assert, that the coal of Great Britain has been one of the chief sources of her prosperity—a prosperity which mines like those of Peru and Mexico would perhaps never have secured. That shrewd and sagacious writer, McCulloch, observes in his Commercial Dictionary—"It is the possession of her coal mines which has rendered Britain, in relation to the whole world, what a city is to the rural district which surrounds it—the producer and dispenser of the rich products of art and industry." If this remark be just, how clear is it that Pennsylvania must hold such a relation to the United States, if not our whole continent. The more our position is contemplated, in the light either of history or of sound judgment in regard to the elements of prosperity, the more clearly must it be seen, that the coal and iron of our mountains have an importance to our nation not easily exaggerated.

On what grounds can our government reasonably hesitate to put forth its best energies for the sustaining of the great coal and iron interests of Pennsylvania—a Pennsylvania interest indeed, geographically, but a national interest in all its great ultimate bearings, if such a thing as a national interest can be known or conceived of?

THE BRITISH COPPER TRADE.

The merchants, copper-smiths, &c., of Birmingham, have agreed to memorialise the Lords of the Treasury on the evils, impolicy, and hardships, to which they are subjected by the excessive duty now levied on copper ore. The memorial, in plain and succinct terms, details the disadvantages which its promoters have to encounter, and shows that in consequence of the duty now levied, the falling off in the revenue, derivable from copper ore, during the last year, was no less than 21 per cent. The memorial concludes by urging the following upon the attention of the Lords of the Treasury:—

"1. That an extensive trade in the manufactures of this town and neighborhood is carried on to the states of South America and the island of Cuba, and that your memorialists are much interested in the unrestricted import of foreign copper ore, as it is the most available return for the value of their exports.

"2. That there has been of late years a great falling off in the export to the Continent and America of British manufactured articles of brass and copper, in consequence of the same being supplied by manufacturers in Belgium and France, who have unrestricted trade in foreign copper and copper ore.

"3. That this is a very important branch of the manufacturing trade of this town and neighborhood; the metals brass and copper entering into the composition of most of the articles on which the largest portion of the population are employed.

"4. That the price of copper in this country, notwithstanding the decline in the value of the manufactured articles abroad, has maintained a high range for the last two years; and that your memorialists consider that this has been supported by the restricted introduction of foreign copper ore, which is peculiarly adapted to the preparations of fine metal much required in the Birmingham manufactures."

A similar movement is being made by some of the merchants of Liverpool. The memorial, from the latter place, contains some clauses referring to the injury sustained by ship-owners in consequence of the decline of the trade.

JOURNAL OF BANKING, CURRENCY, AND FINANCE.

BANKS OF BALTIMORE.

The following condensed review will show the relative position of some of the leading items, and also affords a comparison with the statements of former years:—

CONDENSED VIEW OF THE CONDITION OF THE BANKS OF THE CITY OF BALTIMORE, ON THE FOURTH OF JANUARY, 1847.

Banks.	Capital.	Investment in stocks.	Discounts.	Specie.	Circulation.	Deposits.
Merchants'	\$1,500,000	\$150,876	\$2,000,739	\$252,130	\$205,880	\$408,092
Baltimore	1,200,000	22,126	1,677,765	300,205	230,592	560,774
Union	916,350	13,258	1,237,662	124,315	143,340	298,210
Farmers' & Planters ..	600,625	38,220	1,047,752	236,030	406,076	276,224
Mechanics'	589,812	7,211	1,037,012	206,519	204,818	578,410
Comm'cial & Farmers' ..	215,560	58,231	829,238	229,830	171,769	367,068
Farmers' & Merchants' ..	393,560	132,523	426,960	63,905	99,603	108,202
Chesapeake	337,092	120,314	500,787	*89,648	102,278	238,066
Marine	309,200	75,374	437,410	99,184	114,730	204,492
Western	308,608	11,354	521,204	187,556	275,060	170,736
Franklin	301,850	17,183	370,617	25,186	31,201	52,765
	6,969,359	647,200	10,082,235	1,814,308	1,983,248	3,261,999

The banks of Bal- timore had on	Capital.	Investment in stocks.	Discounts.	Specie.	Circulation.	Deposits.
Jan. 5, 1846.	\$3,971,681	\$856,697	\$10,143,299	\$1,861,500	\$2,159,140	\$3,113,750
Jan. 6, 1845.	6,956,362	835,481	9,677,773	1,885,336	1,856,641	3,167,180
Jan. 1, 1844.	7,490,549	1,123,724	7,551,824	3,529,265	1,647,559	3,652,973
Jan. 2, 1843.	7,985,638	979,747	7,896,929	2,393,564	1,242,397	2,334,967
Jan. 3, 1842.	8,880,118	1,508,852	8,731,284	1,259,785	1,169,793	2,094,807
Jan. 4, 1841.	8,826,279	1,524,117	9,452,575	1,317,860	1,521,667	2,547,226
Jan. 6, 1840.	9,499,004	1,307,004	11,784,338	1,036,765	2,198,867	3,224,498

In 1844, the Citizens' Bank wound up. The Franklin Bank is included in 1840, and not in 1841, '42, '43 and '44, but is in '45 and '46.

BANKS IN MASSACHUSETTS.

The annual abstract of the returns from the banks of this State is published in accordance with the law of the commonwealth, as prepared by the secretary, the Hon. John G. Palfrey. The statement shows the state of the banks on the first Saturday of October last. It appears that returns were made by one hundred and five banks—twenty-five of which are in Boston.

The whole amount of banking capital is	\$31,160,000 00
The bills in circulation amount to	14,594,914 50
The amount of specie on hand is	3,054,755 68
Aggregate of loans	51,326,114 06

We find from the returns of the Savings Banks, contained in the same publication, that the whole amount of deposits in those institutions is nearly eleven millions of dollars. In the New Bedford Savings Institution there are 2,102 depositors, and the amount of deposits, \$422,553 93. The investment in bank stock amounts to \$188,500, and the loans on personal security to \$200,458 51. The dividends of this carefully managed institution have averaged 5.1 per cent for the last five years.

* Including \$24,550 U. S. Treasury Notes.

FINANCES OF MASSACHUSETTS, 1846.

The report of the Secretary of the Treasury of this State exhibits the following statement of the finances of Massachusetts, in 1846 :—

The receipts of the year amounted to.....	\$568,723.88
The expenditure to.....	555,065.31

The aggregate amount of receipts includes—

Cash on hand, 1st January, 1846.....	\$7,698.54
Balance on State Tax for 1845.....	66,606.75
Temporary loans.....	54,000.00

This sum.....	\$128,305.29
Deducted from the whole receipts.....	568,723.88

Leaves.....	\$435,418.50
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As the ordinary receipts for the year.

The amount of the expenditure includes.....	\$90,800.00
5 per cent stock of 1842, paid in 1846.....	37,140.00
Railroad loans, note to Phoenix Bank.....	6,000.00

This sum.....	\$133,940.00
Deducted from the whole expenditure.....	555,065.31

Leaves.....	\$421,125.31
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As the ordinary expenses of the year, showing an excess of ordinary receipts over the expenditures of \$14,283.28.

FINANCES OF NEW JERSEY.

The following summary view of the finances of New Jersey in 1846, is derived from the annual message of the governor of that State :—

Balance in the Treasury, January 10, 1846.....	\$5,278.90
Received during the year, from all sources, including a special loan of \$10,000.....	158,669.30

\$163,948.28

Disbursements during the same period, including \$10,000 of the special loan above, and \$5,000 balance of the loan of the previous year.....	155,174.47
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Leaving a balance in the Treasury, on January 4th, 1847, of..	\$8,773.81
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FINANCES OF PENNSYLVANIA IN 1846.

RECEIPTS AND EXPENDITURES.

The receipts during the last fiscal year, amounted to \$3,529,057.28, to which add the sum of \$384,868.09, the balance in the treasury on the 1st of December, 1845, the commencement of the late fiscal year, exclusive of an unavailable deposit in the United States Bank, and the aggregate presents the means of the Treasury for that period. The payments during the same time amounted to \$3,529,264.67. Thus:—

Receipts during the fiscal year.....	\$3,529,057.28
Balance in the Treasury, November 30, 1845.....	384,868.09

Total revenue.....	\$3,913,943.37
Amount of expenditure during the same period.....	3,529,264.67

Balance in the Treasury, November 30, 1846.....	\$384,678.70
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RAILROAD, CANAL, AND STEAMBOAT STATISTICS.

PHILADELPHIA AND READING RAILROAD.

COL. C. G. CHILDS, of the "Philadelphia Commercial List," furnishes the following comprehensive history and description of this great public work, which we have reason to know, may be relied on for its general accuracy. About one-third of the stock of this road is owned in Boston, a third in Europe, and the remainder in Philadelphia and other places. It is under very efficient management, and the President of the Company, John Tucker, Esq., is admirably fitted for the station that he occupies:

This railroad was projected in 1833, a charter obtained in 1834, surveys made the same year, and 41 miles put under contract and construction in 1835.

It was originally designed for its present purpose, an outlet or avenue to market for the Schuylkill Coal Region; but its first charter extended only to that town which has the honor of giving it a name, the Borough of Reading, 59 miles from its terminus on the Delaware river, near Philadelphia; as the right of constructing a railroad between Reading and Port Clinton, 20 miles, had already been granted to another corporation, the "Little Schuylkill Railroad Company," terminating at the latter point. From insufficient means, this company were unable to extend their road, and yielded their right and charter to the Reading Railroad Company, who, with a further extension of their charter, beyond Port Clinton to Pottsville, went into an active prosecution of the whole work; from Pottsville to the Delaware, 93 miles, under one charter, now known as the Reading Railroad.

Every Pennsylvanian is familiar with the great embarrassments to the business of the country, checking commercial enterprise, disastrous to every branch of industry, and fatal to public and private credit, during the period from 1838 to 1842. Notwithstanding all these difficulties, the friends of this road pushed steadily on with its construction, taxing their energies, their means, and their credit, to the utmost, to insure its speedy completion; and, on the first day of 1842, the first locomotive and train passed over the whole line, between Pottsville and Philadelphia.

From that date to the present, its business, its revenue, and its credit have increased in a degree scarcely paralleled by any similar improvement, until its tonnage and its receipts are measured, as at present, by millions.

Two continuous tracks of railway extend the whole distance of 93 miles, from Mount Carbon, near Pottsville, to the Delaware river, 3 miles above the heart of the city of Philadelphia; with a branch also laid with a double track $1\frac{1}{2}$ miles long, connecting by the State road with the principal business street of the same city, for the passengers, merchandise, and city coal business. The rail used is of the H pattern, with both top edges alike, and weighs $45\frac{1}{2}$, $52\frac{1}{2}$, and 60 lbs. to the yard; the lightest having been first, and the heaviest last, used. A few tons of other rails, purchased before a further supply of the pattern adopted for the road could be obtained in England, and varying from 51 to 57 lbs. per yard, are also in use.

The track is laid in the most simple manner, the lower web or base of the rail being notched into 7 by 8 white oak cross-sills, and these laid on broken stone 14 inches deep, and well rammed. This method is found admirably calculated for the enormous tonnage of the road, being rapidly and economically repaired and replaced, securing a thorough drainage, and preserving its line and level true at all seasons of the year.

The grades of this road are the chief elements of its success in revolutionizing public opinion on the subject of the carriage of heavy burdens by railway. From the most important branch coal-feeder of the road, at Schuylkill Haven, to the Falls of Schuylkill, a distance of 84 miles, the grades all descend in the direction of the loaded trains, or are level; with no more abrupt descent than 19 feet per mile. At the Falls, an assistant locomotive engine, of great power, pushes the train, without the latter stopping, or any delay, up a grade of $42\frac{1}{2}$ feet per mile, for 14-10 miles, leaving it on a descending grade, within four miles of Richmond, whither it is readily conveyed by the same engine which started from Pottsville, never leaving her train.

The bridges on this line are of great variety in plan and material of construction, stone, iron, and wood. The most perfect and beautiful structure on the road, if not in the State, is a stone bridge over the Schuylkill, near Ploverville, built of cut stone throughout, with 4 circular arches, of 72 feet span, and $16\frac{1}{2}$ feet rise each, at a cost, with ice-

breakers, of \$47,000. There are 75 other stone bridges and culverts, varying from 6 to 50 feet span, all of circular arcs, spanning water-courses, branches of the Schuylkill, and roads. There are seven bridges from 25 to 38 feet span each, built of iron, trussed after the "Howe" plan, with wrought-iron top and bottom chords, wrought-iron vertical tiles, and cast-iron diagonal braces. These bridges are stiff and light, and present a very neat and handsome appearance. As, however, the flooring is of wood, and therefore liable to decay and accident, they have only been used where the width and depth rendered stone bridges impracticable, the latter being always used in replacing wooden structures, wherever it was practicable. There are 22 long wooden bridges, varying from 41 to 160 feet span, built on various principles, chiefly of lattice-work, assisted by heavy arch pieces. Of this latter description, the bridge over the Schuylkill at the Falls, is a fine specimen. It is 636 feet long, consisting of four spans of 134, two of 152, and one of 160 feet, respectively, with its deck 46 feet above the river. There is one bridge built on "Burr's" plan, with double arch pieces of 149 feet span, and one on "Howe's" plan, 156 feet span, also assisted by arch pieces. Besides the above, there are 28 wooden bridges of short spans, from 14 to 39 feet, built of King post, Queen post, "Howe's truss" and joists.

There are four tunnels on the road. The longest of these is near Phoenixville, 1,934 feet long, cut through solid rock, worked from five shafts and two end breasts; deepest shaft 140 feet; size of tunnel, 19 feet wide by 17½ high; total cost, \$153,000. Another tunnel at Port Clinton is 1,600 feet long, worked from the two ends only; material loose, and solid rock mixed; 1,300 feet are arched; depth below the surface of ground, 119 feet; total cost, \$138,000. The Manayunk tunnel is 960 feet long, through very hard solid rock, worked from two ends; depth below surface, 95 feet; total cost, \$91,000. Another tunnel, under the grade of the Norristown railroad, and through an embankment of the latter is 172 feet long, formed of a brick arch, with cut stone facades.

The depots on this road are all substantially built, with a view to use rather than ornament. At Schuylkill Haven, 3 miles from Pottsville, is erected a spacious engine-house, round, with a semi-circular dome roof 120 feet diameter, and 96 feet high, with a 40 feet turning platform in the center, and tracks radiating therefrom, capable of housing 16 second class engines and tenders. At Reading are located the most complete, extensive, and efficient workshops, and railroad buildings of every description to be found in the country. The company's property covers here, besides the railroad tracks, 36 acres, the greater part of which is already in use, for the various operations required to keep this vast machine in life and motion. The main machine-shop is 159 by 70 feet, filled with the most valuable tools and machinery, all made, with the exception of three or four lathes, in the company's workshops, by their own mechanics. Other machine shops, one 87 by 40 feet, are used for fitting iron and brass exclusively.

The iron foundry is 164 by 35 feet, with two cupolas. The largest blacksmith's shop is 121 by 31 feet; 57 smiths' fires being daily in use on the works, all blown by fans, driven by steam. The main carpenters' shop is 14 by 46 feet, with a pattern shop in the second story. The iron coal cars, tenders, and smoke-pipes, are made and repaired in a shop 123 by 83 feet.

A merchandise depot just completed, is 124 by 84 feet, to accommodate that rapidly increasing branch of business. About a mile below the Reading depot, where the railroad is near the river, most efficient water-works have been lately constructed, consisting of a reservoir on the Neversink hill side, 51 feet above the rails, holding 700,000 gallons of water, supplied with a force pump worked by a small steam-engine. Attached to this station are also two separate tracks with coal-shutes beneath, 300 and 450 feet long each, for the use of the town; two wood and water stations, a small portable steam-engine for sawing wood, a refreshment house for crews of engines stopping to wood or water; a brass foundry, passenger car house, passenger rooms, offices, &c., &c. All the machinery of the main shops and foundry is driven by a very handsomely finished stationary engine, with double cranks, of 35 horse-power, built entirely on the works.

At Pottstown station, 18 miles below Reading, extensive and efficient shops have also been erected, chiefly for work connected with the bridges and track of the road, and new work of various descriptions. The principal shops here are 151 by 81, 101 by 41, and 81 by 44 feet. The first shop is covered with a neat and light roof, built of an arched "Howe truss," forming a segment of a circle, 78½ feet span, by 16 feet rise.

At Richmond, the lower terminus of the road, at tide water on the river Delaware, are constructed the most extensive and commodious wharves, in all probability, in the world, for the reception and shipping, not only of the present, but of the future vast coal tonnage of the railway; 49 acres are occupied with the company's wharves and

works, extending along 2,272 feet of river front, and accessible to vessels of 600 or 700 tons. The shipping arrangements consist of 17 wharves or piers, extending from 342 to 1,132 feet into the river, all built in the most substantial manner, and furnished with shutes at convenient distances, by which the coal flows into the vessel lying alongside, directly from the opened bottom of the coal car in which it left the mouth of the mine. As some coal is piled or stacked in winter, or at times when its shipment is not required, the elevation of the tracks by trestlings, above the solid surface or flooring of the piers, affords sufficient room for stowing 195,000 tons of coal. Capacious docks extend in-shore, between each pair of wharves, thus making the whole river front available for shipping purposes; 97 vessels can be loaded at the same moment, and few places present busier or more interesting scenes than the wharves of the Reading Railroad at Richmond. A brig of 155 tons has been loaded with that number of tons of coal, in 180 minutes, at these wharves.

A very convenient and neat engine-house has lately been erected at the station; it is of a semi-circular shape, with a 40 feet turning platform in the center, outside, from which tracks radiate into the house, giving a capacity for 20 engines and their tenders of the largest class, the building 302-feet long on the center line, by 69 feet wide. It is built in the simple Gothic style, the front supported by cast-iron clustered pillars, from the tops of which spring pointed arches, and the whole capped with turretted capping. Immediately adjoining are built spacious machine and workshops, for repairs of engines and cars, all under one roof, 221 by 63 feet. A visit to this chief outlet of the Pennsylvania coal trade, will give the best idea of its magnitude, and of the various branches of industry connected with it.

The business of this road requires a large amount of running machinery. The latter consists of 71 locomotive engines and tenders, including five in constant use on the lateral railroads in the coal region; 3,020 iron, and 1,589 wooden coal cars; 482 cars for merchandise and use of road, and 17 passenger cars.

The engines vary from 8 to 22½ tons weight; two very powerful engines, of 27 tons weight each, are used exclusively on the Falls grade before mentioned. The iron cars weigh 2 4-10 tons, empty, and carry five tons of coal. The average load of each engine, during the busy months of the year, is about 410 tons of coal, (of 2,240 lbs.) The cost of hauling coal on this road is about 35 cents per ton. Freight or merchandise 75 cents per ton, and passengers, 41 cents each, through. Its grades have chiefly secured this great economy in transportation.

The total length of lateral railroads connecting with the Reading Railroad, under other charters and corporations, but all contributing to its business, using its cars, and returning them loaded with coal and merchandise, is about 95 miles. Some of these railroads are constructed in the most substantial manner, with the best superstructure at present used in the country.

By the monthly reports which have been made of the business of the company, it appears that the receipts from Dec. 1, 1845, to October 31, 1846, have been \$1,707,312 25. The receipts for the remaining month of the fiscal year, which ended Nov. 30th, 1846, will be sufficient to swell the gross receipts to about \$1,900,000.

In the last annual report, the managers estimated that the gross receipts would be, for the same period, \$1,725,000. From this statement it appears, that unless the expenses vastly exceed the estimate given in the same report, the result of the year's business will prove very gratifying to the stockholders.

RAILROAD IRON IN THE UNITED STATES.

TO THE EDITOR OF THE MERCHANTS' MAGAZINE.

In your number for January, is a statement of the quantity of railroad iron now made in the United States, taken from the Pottsville Miners' Journal, in which it is stated that the first railroad iron made in this country was in 1844, but does not mention by whom. As this is a very prominent article in our manufactures, it is desirable the date of its commencement should be accurately known. I believe the first made here was by the "*Great Western Iron Company*," on the Alleghany river, about 40 miles above Pittsburgh, of which company Mr. Knowles Taylor, of New York, was the president and principal projector. In January, 1842, this company held 200 tons railroad iron ready for delivery at Cincinnati, for a railroad in Indiana, at \$50 per ton, at which price they lost money. This company is now called the *Brady's Bend Iron Works*, and is entitled to the credit of making the first railroad iron in the United States. The *Miner's Journal*, in the list of the several iron companies, puts down the Fall River Company "*in Connecticut*." It is near Taunton, Massachusetts.

COMMERCIAL REGULATIONS.

HARBOR REGULATIONS OF PORT OF MACAO, CHINA.

ALTERED FROM THE DECREE OF MARCH 31st, 1846.

We give, below, the new harbor regulations for the port of Macao, China, which went into operation on the 7th of May, 1846. They will be found important to masters of vessels, and others interested.

The governor, "for the convenience of trade, and to diminish the responsibility of the harbor-master," has resolved to alter the regulations, enacted previously by the decree of 31st of March, 1846, and to order the following, which shall take effect from this date, (7th May, 1846):—

1. The office of the harbor-master shall be near the custom-house.
2. Every vessel wanting a pilot on entering the roads, shall have her national flag at the foremast-head.
3. The harbor-master alone, shall have power to employ in his service pilots who have passed an examination.
- § 1. In the department of the harbor-master, no cognizance shall be taken of losses in any ship under charge of a pilot who has not been examined and sent on board by the harbor-master, whether in entering or departing.
- § 2. The pay of pilots who have been examined, shall continue the same as those now established.
4. The captain, or master of the ship, shall deliver to the person authorized to keep a register of them, a list of the names of all the passengers, declaring their employment and destination; also, all the papers he brings, mentioning the number.
5. The captain, immediately on landing, shall produce to the harbor-master his register, and a list of the crew of the vessel. These documents shall be kept at the harbor-master's office till his departure.
6. The harbor-master shall send immediately to the chief of the custom-house, a statement of the number of tons of the ship or ships entering the river or Typa, extracted from the proper document, and authenticated by it.
7. Ships cannot enter or leave the harbor, in the northeast monsoon, drawing more than fifteen feet of water, and in the southwest, requiring more than sixteen feet, and that only in spring tides. On other occasions there are only thirteen feet.
8. Vessels are not allowed to enter the harbor with gunpowder on board. It must be deposited on entering, at the Bar-fort, and received again on the vessel's departure.
9. It is prohibited to throw ashes or ballast into the sea, within the ports.
10. Vessels cannot change their anchorage within the river, without the consent of the harbor-master.
11. Vessels are obliged to have their sheet-anchor always ready to drop.
12. If any of the crew desert the ship, it must be made known to the harbor-master, who shall take measures for his apprehension. If he is not found before the vessel sails, he may be apprehended as soon as he appears, if that is desired, in order to be delivered up to the competent authority.
13. It is prohibited to leave sick persons in Macao, and these can be landed only by permission of the harbor-master.
14. No captain shall have the power to turn away all, or a part of the crew of his vessel, without consent of the harbor-master.
15. It belongs to the harbor-master to make a registration of the crew.
16. Masters or captains of vessels who intend to depart, shall produce some time before to the harbor-master, all their papers and clearances which ought to be given them by the custom-house, declaring if he has gunpowder in deposit; and if these papers are regular, the harbor-master shall give the last clearance.

Contravention of these articles shall be subject to the award of the law.

The authorities to whom the cognizance of these things belongs have thus understood and decreed.

(Signed)

JOAO MARIA FERREIRA DO AMARAL.

Macao, 1st May, 1846.

SHIPMENT OF COTTON.—REGULATIONS.

The following notice has been promulgated by the Liverpool Chamber of Commerce

AMERICAN CHAMBER OF COMMERCE, LIVERPOOL, 3d December, 1846.

GENTLEMEN:—I beg to acquaint you, for the information of the mercantile community of New York, that, in pursuance of a recent order of the Lords of the Treasury, from and after the 12th December, the landing waiters will not weigh cotton, or other free goods imported into this port, except a few packages to ascertain the average weights.

Shippers of cotton will observe, that in consequence of this change, it will be necessary that the weights should be accurately taken at the port of shipment, so as to avoid delays and differences in the adjustment of freight on landing.

I am, your very obedient servant,

G. J. DUNGAN,

Secretary of the American Chamber of Commerce, Liverpool.

In connection with this notice, the New York ship-owners have agreed as follows:—

NEW YORK, December 28, 1846.

The undersigned, owners or agents of vessels engaging in freight from this port to Liverpool or London, agree that, on and after this date, all freights to either port, engaged by either of them, shall be on condition that the freight shall be paid immediately on the landing of the goods, and the same shall be particularly noted on the bills of lading, before signing, to wit: "Freight to be paid immediately on the landing of the goods, without any allowance of credit or discount to the consignee." They also further agree, that freight on cotton shall be charged on the invoice weight, which must be furnished by the shippers before the bills of lading are signed, and the amount of freight to be paid specified on the bill of lading.

GRINNELL, MINTURN & Co.

ROBERT KERMIT.

EDWARD K. COLLINS & Co.

WOODHULL & MINTURN.

CHARLES H. MARSHALL.

TAYLOR & MERRILL.

SPRAGUE, ROBINSON & Co.

SLATE, GARDINER & HOWELL.

JOHN GRISWOLD.

NESMITH & WALSH.

COOK & SMITH.

DUNHAM & DIMON.

JOHN OGDEN.

THOMAS S. WINSLOW.

D. & A. KINGSLAND & Co.

DAVID OGDEN.

E. T. HURLBUT & Co.

The following is the law passed by the South Carolina Legislature in relation to the tare on cotton:—

"Be it enacted by the Senate and House of Representatives, now met and sitting in General Assembly, That the custom of making a reduction from the actual weight of bales of unmanufactured cotton, as an allowance for tare or draft thereon, be and the same is hereby abolished; and that, hereafter, all contracts made in relation to such cotton shall be deemed and taken as referring to the true and actual weight thereof, without deduction for any such tare or draft."

NAVIGATION OF STEAM VESSELS.

The "rule" for the guidance of persons in charge of vessels navigated by steam was abrogated on the 1st January, 1847, by an act of the British Parliament. The following section is the new law:—

"That every steam-vessel when meeting or passing any other steam-vessel shall pass as far as may be safe on the port side of such vessel, and every steam-vessel navigating any river or narrow channel, shall keep as far as it is practicable to that side of the fairway or mid-channel of such river or channel which lies on the starboard side of such vessel, due regard being had to the tide and to the position of each vessel in such tide; and the master or other person having charge of any such steam-vessel, and neglecting to observe these regulations, or either of them, shall for each and every instance of neglect forfeit and pay a sum not exceeding £50. Lights are to be hoisted, in conformity with regulations to be made by the Admiralty, from sunset to sunrise, whether under way or at anchor, and also on the coast within twenty miles of the coast of Great Britain and Ireland, except in the river Thames above Yantlet Creek."

NAUTICAL INTELLIGENCE.

NAUTICAL INVENTION FOR STEERING SHIPS.

WE cheerfully publish the subjoined notice of "Boston," relating to Mr. Brown's invention, as an act of justice, omitting the illustrations:—

Boston, January 19, 1847.

FREEMAN HUNT, Esq.

Dear Sir:—In the January No. of the Merchants' Magazine, a very valuable publication, I noticed on the 90th page, a notice as follows:—"Nautical Invention for Steering Ships," taken by you from the Philadelphia North American, but which, you state, is an improvement, and of great importance to navigators. On looking over that article, I find that this improvement, claimed as the invention of R. C. Holmes, agent for the underwriters, &c., and in said article pronounced by the first seamen as the greatest improvement ever accomplished, consists of two barrels or drums. It is then said, "the invention is a new feature in mechanics, nothing like it having been discovered in the books of the patent office."

I have now before me a circular, issued some years since, of an invention very similar, if not exactly the same, which was invented, and I think, patented, some time prior to 1826; at any rate, it was used on board a Boston vessel about that time. This invention was made by John Mills Brown, who was formerly connected with the Federal-street Theatre, and now resides at Cold Spring, Putnam county, New York. My only object in addressing you is, that the credit of the invention, if any, may be attributed to the right source, and to caution those who intend paying for the new improvement, so called. Annexed, you will find a sketch of Brown's plan. Yours, &c., Boston.

"My invention consists of two cylinders, A and B, formed out of one solid piece. The tiller-rope is wound round the small barrel A, then rove through a sheave and on to the large cylinder B; so that if you turn the wheel so as to wind up the rope on the large barrel, it will, at the same time, be let off of the smaller barrel, and the tiller be moved a distance which is equal to half the difference of their respective circumferences; and as the two ends of the tiller-rope operate on the opposite sides of the wheel, there is no strain or shock upon the helmsman. It is quicker than any other wheel, and can be applied in various ways."

HARBOR OF GLUCKSTADT.

At the extremity of the North Harbor Dam a lantern of 23 feet above high water will be kept burning every night from the 1st December, 1846, which in every direction may be seen at the distance of one league from the harbor, throwing a reddish glare from southwest over west as far the North Elbe shore. Before the head of the North Harbor Dam there is a shallow place, at which, at ordinary flood tide, there are twelve to thirteen feet of water; up to the time that this shallow place will be filled up, there is placed on the outermost westerly point a green buoy, with handle and broom. At the south side of the same is the entrance to the harbor, which, at high water, has the depth of seventeen to eighteen feet. In the harbor is stationed a steamer to tow ships to and from Gluckstadt, and those who require the assistance of the same have only to hoist their national flag on the mainmast, as soon as the same may be expected to be visible from the harbor.

REVOLVING LIGHT ON CAPE ST. VINCENT.

Notice has been given that a light was in preparation for Cape St. Vincent, and the Portuguese government has now announced that a revolving light was established there on the 29th of October, 1846. Each revolution of this light is performed in two minutes, in the course of which period a brilliant light appears for a short time, and is then succeeded by darkness. The lighthouse stands on the western part of the cape, in lat. 37° 29' north, and in lon. 9° 00' west of Greenwich; and the light being 221 feet above the level of sea, may be seen at the distance of about 19 miles.

MERCANTILE MISCELLANIES.

PHILADELPHIA MERCANTILE LIBRARY ASSOCIATION.

THE twenty-fourth annual meeting of this institution took place at their hall, on the evening of the 12th January, 1847, John B. Myers, Esq., in the chair, and A. T. Chew, Secretary. The report of the president and directors is a comprehensive, business-like paper. The past year of the association has been one of general prosperity.

The regular augmentation of the members of the society, the increased attendance at its rooms, and its manifest capacity for enlarged usefulness, are causes of congratulation to all who feel an interest in its welfare.

The directors have on so many occasions urged the claims of the institution to support, and dwelt so earnestly on the benefits which it offers to all who are disposed to share its advantages, that lengthened appeals in relation to these topics, are deemed unnecessary.

The shelves of the library are capable of containing fifty thousand volumes; and it should be a laudable ambition, with all who may be connected with the institution, gradually to fill them with such works as shall be of permanent value. When every department of literature and science shall there be appropriately represented, then, indeed, will exist a proud monument to the mercantile character of Philadelphia.

The number of volumes taken out for perusal during the past year has been 19,911, being an excess of 5,115 over the preceding year. The newspaper room has been supplied with the usual number of papers, and most of the valuable periodicals may be found on the tables. It is recommended to the next board, to increase these so far as may seem judicious, this description of reading being particularly attractive to the visitors.

The resolution which was adopted at the last annual meeting of the stockholders, in relation to the proposition to open the room every afternoon at 3 o'clock, was carried into effect by the directors, and seems to have given universal satisfaction. The attendance, in consequence, of woman, whose countenance gives lustre to every enterprise, has imparted a new feature of refinement and interest to the association.

It further appears from the report, that the public voice has responded to the calls of the institution with a liberality surpassing the hopes of the most sanguine friends; and its history will, hereafter, be one of quiet triumph, and its condition, in all human probability, one of unmingled prosperity. It was rightly assumed, that an institution which held out sources of innocent enjoyment to the young, and which, by expanding the intellect, necessarily improved the qualities of the heart, would not be permitted to languish in this community.

The connection which is traced between intellectual culture and mercantile ability, between moral excellence and business success—must be exemplified and augmented by the influence of this and similar associations, in the United States; while the course of life in the young, which strengthens morals and guards integrity, will, it is thought, find its best illustration in those fostered under its care. The directors have added considerably to the valuable works of the library, during the past twelve months; the number of volumes purchased being 641. They have endeavored so to arrange the resources of the company, that a considerable addition may be made to the catalogue during the next year.

It has become necessary, in consequence of the large addition of works to the library, since the last catalogue was published, to have a new catalogue prepared with the least possible delay. The last was seriously defective in classification and arrangement, and has been proved entirely inadequate to the purpose for which it was intended. James Cox, the Librarian, who has served the institution with so much

fidelity during the last seventeen years, has presented an ingenious form for a catalogue, which seems to obviate former defects, and the directors recommend its being adopted for the contemplated new one.

The sinking fund, which it is contemplated to set apart for the purpose of liquidating the ground rent, will, it is believed, be sufficiently large to effect that object in the course of a few years. When this is accomplished, the company will be in unencumbered possession of their valuable property, and derive therefrom a very considerable income.

The directors have caused to be engraved, by William E. Tucker, a representation of the library building, which is justly admired for its accuracy and exquisite finish. It is intended for a vignette to new certificates of stock, now in course of preparation, which, when completed, the stockholders can obtain in lieu of their old ones, by leaving the latter with the treasurer or librarian.

The report is signed by Thomas P. Cope, Esq., who has for several years filled the office of president, with the entire approbation of the society. We subjoin a list of the officers elected for the present year:—

Thomas P. Cope, President; Isaac Barton, Charles S. Wood, Joseph Patterson, Robert F. Walsh, J. J. Thompson, J. L. Erringer, William L. Schaffer, W. E. Bowen, Marmaduke Moore, Philip S. Justice, W. L. Rehn, William Ashbridge, Directors; John Fausset, Treasurer.

ROUSSEL'S MINERAL AND PERFUMERY MANUFACTORY.

We recently visited, in Philadelphia, the perfumery manufactory of Eugene Roussel which is the most popular one of the kind in the United States. Indeed, we believe, that no other manufactures the same variety of articles, or to the same extent. M. Roussel is a Frenchman, and came to this country in 1838, when he commenced the manufacture of perfumery in every variety; and from a very small beginning, he has risen to be one of the most extensive manufacturers in the world. The large experience which M. Roussel enjoyed in Paris, as foreman of the extensive house of Laguirer, Pere et Fils, so generally known for more than half a century throughout Europe, and who were honored with a silver medal from the French government at one of the great triennial exhibitions of the products of national industry in France, eminently qualifies him to conduct, profitably and honorably, the business in which he is engaged. The capital invested in Roussel's establishment, exceeds \$50,000, and the number of hands employed is over 100. The shaving cream manufactured at this establishment is of a superior quality, and exceeds *ten* thousand pounds per annum; which, at the moderate calculation of 25 times for each box would shave 4,000,000. Roussel manufactures over 50,000 lbs. of toilet soap of all kinds, and 2,500 galls. of Cologne water, besides a large quantity of hair oils, pomatums, extracts for the handkerchief, hair dyes, &c. The amount of his annual sales of perfumery and soap exceeds \$60,000.

M. Roussel was the first to introduce mineral water into the United States, in bottles, which he commenced in 1839. The sales of this water did not then average more than ten or fifteen dozen ~~per~~ per day, and at this time he puts up and sells from thirteen to fourteen hundred ~~dozen~~ daily. Not less than 100 establishments for the manufacture, have grown up since M. Roussel introduced its manufacture into the United States. The value of the corks consumed, alone, amounts to \$10,000; sugar, \$12,000; cost of bottles per annum, \$6,000; number of bottles manufactured per annum, 4,500,000. The total value of mineral waters sold, amounts to \$60,000. The amount of wages paid persons in the manufacture of the several articles, is about \$20,000. M. Roussel has received several gold and silver medals from the different industrial institutions of our country, and we have no doubt but that the articles from his establishment are equal in every respect to those made in Paris.

ST. LOUIS, THE FUR TRADERS' POST.

Thomas Allen, Esq., of St. Louis, recently delivered a lecture before the Mercantile Library Association of St. Louis, on the fur trade, and kindred subjects. A portion of it has been published in the papers of that city, but that part which details the history of the fur trade has been omitted, as it is stated that the lecturer is engaged in a more elaborate work on the trade.

We see St. Louis, the fur traders' post, has become St. Louis, the empress city of the West; that the steamboat has taken the place of the Mackinaw boat, that the iron horse of the railroad is supplanting the pack-mule and the wagon-train, and that a messenger of news, in place of the Indian runner has come into service, which has annihilated all space, and brought the whole family of the United States to feel as one body, throughout which thought is communicated with the quickness of sensation in the nervous system. We shall not regret that agriculture has taken under its care the former hunting-grounds of the savage, nor that manufactures are occupying the old dams of the beaver. Commerce, the civilizer, of which the fur trader was the forerunner, is working all these beneficent changes. She is doing more. She is increasing the population, opening new sources of industry, enlarging, cheapening, and equalizing the means and variety of enjoyment. The beaver, model of industry as she is, is not more active in supplying the necessities of her young, than commerce in supplying the wants of man. Without commerce, we should have had no broad cloth nor domestic, no loom nor cotton gin, no steam-engine, nor gunpowder, nor paper making, nor printing, nor tea, nor coffee, nor spices—we should have had no Homer, nor Shakspeare, nor Milton, nor Scott—and ages would have passed without experience, and lives without knowledge.

St. Louis, from her position and destiny, require the full stature of mercantile character. She is advancing to a throne of empire, second to one only, in this great valley, which is to be with her future millions of inhabitants the garden and granary of the world. The merchant is to play a very important part in working out and shaping this glorious destiny. The moral influence, the popular renown which each individual will possess in the great procession of coming events, will depend, not wholly on his industry or his fortune, but more on the enlightened energy of his mind and the probity of his character.

In the foundation of a library, we recognize the true spirit of mercantile liberality. Properly conducted and sustained, it will prove to the merchant a BANK, whose capital can never fail, and whose issues will not depreciate—a BANK upon which he can make drafts, without limit, for geography, for history, for information in respect to the commercial systems and police of nations, the nature and extent of their commerce, their sources of industry, their tastes, their wants, and their supplies. How delightful would it be to see the young merchants of St. Louis making a run upon such a bank! What a hope-inspiring spectacle to behold them animated with a desire to exhaust the institution of its treasures!

Au contraire, let me add: when we see a city of merchants, devoured by the avarice of gain, taking no relief but in passing sensual pleasures, we can have no expectation of seeing them rise above the condition of mere shopkeepers. But when we observe a city of shopkeepers habitually seeking the temples of knowledge, we shall confidently look among them to find the Spragues, the Rogers, the Hallecks, the Charles Lambs, the Lawrences, the Roscoes, the Hancocks of their day.

HINTS TO MERCHANTS AND BUSINESS MEN.

Keep your accounts straight. Many a man has lost a fortune by carelessness. The little time and trouble it takes day by day, to keep debt and credit, and file away bills that have been paid, is nothing to be compared with the future benefits. No man is perfect, and the most honest may forget that you have adjusted your account, and present his bill again. If you feel sure you have cancelled the debt, you may not convince your creditor of the fact. But if you have preserved his bill receipted, there can be no mistake or further trouble about it.

AMERICAN IRON-WOOD.

We learn that the revenue authorities of England have permitted iron-wood, a species of cedar or mahogany, the produce of this country, to be admitted duty free, being of opinion that the wood in question comes under the description of furniture wood, and is admissible to entry free of duty under the order of the lords of the treasury of 22d ult.

THE BOOK TRADE.

- 1.—*A Treatise on the Law of Principal and Agent*, chiefly with reference to Mercantile Transactions. By WILLIAM PALEY, of Lincoln's Inn, Esq., Barrister at Law. The third edition, with considerable additions by J. H. LLOYD, of the Inner Temple, Barrister at Law. Third American edition, with further extensive additions, by JOHN A. DUNLAP, Counsellor at Law. New York: Banks, Gould & Co., Law Booksellers.

It is well remarked, by the learned editor of an English edition of this standard Treatise on the Law of Principal and Agent, that the vast extension of modern commerce, both foreign and domestic, and the novelty and variety of the channels through which it is carried on, and perhaps also, a different system of transacting mercantile business, have given rise to new situations and questions upon the subject of commercial agency, which have come under legal investigation. The volume before us, a handsome octavo of nearly five hundred pages, is unquestionably the most complete and thorough edition of the work that has ever been produced; and the numerous additions made by the American editor, are of a character materially to enhance its value. It would, with the endorsement of our leading jurists, be almost, on our part, a work of supererogation to enlarge upon its value to professional men, as well as to the merchant, who desires to understand the leading features of the subject.

- 2.—*A Treatise on the Criminal Law of the United States*; comprising a Digest of the Penal Statutes of the General Government, and of Massachusetts, New York, Pennsylvania, and Virginia; with the decisions on cases arising upon those statutes, together with the English and American authorities upon Crime and Law in General. By FRANCIS WHARTON, 1846.

Such a work as this has long been a desideratum with the profession. The works of Barbour and the Davis's—the only American treatises, strange to say, attempted upon the same subject—amount to simple examinations into the duties of justices of the peace, and such as are beneficial only to those who stand in need of the most elementary expositions of criminal law. The book of Mr. D. Davis, it is true, also goes to enlighten citizens as to their office when called upon to act as grand jurors; but this scarcely enlarges its sphere of usefulness. Practitioners at the bar have been hitherto obliged, for their part, to rely upon the labors of Chitty, Russell, Archbold, and Roscoe, who give us the old crown law, with the British judicial decisions added to it—a code which every day causes to differ more and more from our own, which is the offspring of freer institutions and a larger personal liberty. The ordinary expedient of compensating for the defects of these writers by a supply of domestic foot notes and references, has become altogether insufficient; since the decisions of our courts have so increased in number as to often be of really more importance than the English text upon which they profess to comment. It is on this account that the work now before us has been so sincerely welcomed. Its author is Mr. Wharton, a gentleman whom Pennsylvanians have been complimenting for his able performance of the duties of prosecuting attorney of the commonwealth, for Philadelphia. It is what it professes to be—the criminal law of the *United States* digested, as well as compiled, and possessing every requisite that could be desired in it. An able legal writer has remarked upon the concluding book, *On Trial, and its Incidents*, that the reader will find in it “the subject, not only masterly treated, but an amount of information embodied, divided, and digested, in a manner altogether unattempted in any previous work on law, English or American.” This may be said truly of all the six books of which it is composed. It is, throughout, executed in a painstaking and industrious, yet finished and scholarlike manner.

- 3.—*Small Talk on Great Subjects*. Nos. 7, 8, 9. Philadelphia: Lea & Blanchard.

The numbers before us of these comprehensive essays on popular subjects, complete the series. No. 8 is devoted to an exposition of vulgar and common errors, adapted to the year MDCCCLV; No. 7, to Christian doctrine and practice in the second century; and No. 9 is an introduction to vegetable physiology, with reference to the works of De Candolle, Lindley, etc. The circulation of these works in England, has been commensurate with the marked ability displayed in their production, and if it is not so in this country, we shall be the losers.

- 4.—*Instructions to Young Sportsmen, in all that relates to Guns and Shooting* By Lieut.-Col. P. HAWKES. First American, from the ninth London edition. To which is added, the Hunting and Shooting of North America, with descriptions of the animals and birds. Carefully collated from authentic sources. By WILLIAM J. PORTER, Esq., editor of the New York Spirit of the Times. Philadelphia: Lea & Blanchard.

This is a very thorough and complete manual for the sportsman, embodying the whole range of subjects connected with guns and shooting in England; and the American editor, whose taste and studies eminently fit him for the task, has omitted only what is of a local character, and supplied the place with whatever of utility or interest pertains to sports in the United States. It is, on the whole, one of the most complete and thorough treatises bearing on the subject, that has ever fallen within our observation.

- 5.—*The Dog*. By WILLIAM YOUTT. Edited with additions by E. J. LEWIS, M. D., Member of the Academy of Natural Sciences, Philadelphia; of the Philadelphia Medical Society; of the Prussian Medical Society, etc. Philadelphia: Lea & Blanchard.

Mr. Youtt's success as an author in this particular department of literature, has been owing, in a great measure, to his enthusiastic devotion to the study of natural history. In the present volume, devoted to the dog, we find embodied, not only the early history, classification, varieties, and qualities of the dog, but whatever is calculated to promote his training for the various uses of domestic pursuits. The diseases which affect the dog, and the mode of treatment, are fully discussed; and we have, moreover, a fund of anecdotes, illustrative of his faithful characteristics, which will interest the admirers of this noble animal. Dr. Lewis, without abridging, as we are informed, the English edition, has added to the volume some sixty additional pages, thus adapting it to the wants of our own country, where the varieties of the animal are more numerous than they are in England.

- 6.—*American Natural History*. By JOHN D. GODMAN, M. D. To which is added his last work, "Rambles of a Naturalist," with a biographical sketch of the author. In two volumes. Philadelphia: Uriah Hunt & Son.

This work, the production of Dr. Godman, who was born in Maryland in the year 1794, has passed through numerous editions, and acquired the character of a standard in the department of literature which it covers. It comprehends a classified account of the animals of all North America, their genus, and whatever tends to illustrate their character and habits. Its standard value, and the high reputation the author enjoyed, will secure for the present edition, which is published in a handsome and substantial style, a steady, if not extensive sale. It abounds in illustrative anecdotes of animals.

- 7.—*State Book of Pennsylvania*; containing an account of the Geography, History, Government, Resources, and Noted Citizens of the State, with a map of the State and of each county. By THOMAS H. BURROUGHS. Philadelphia: Uriah Hunt & Son.

The title very sufficiently expresses the leading features of this interesting manual, which appears to have been prepared with great care, and its arrangement is the most convenient for study or reference of any work of its kind that has of late fallen under our notice. It has a separate map of each county in the State, with appropriate and well executed illustrations. The author was some time Secretary of State in Pennsylvania, and had access to various means of information not familiar to many compilers, and has given us a clear and comprehensive account of the "Key-stone State" and its resources.

- 8.—*The Pleasures of Taste, and other Stories*; selected from the writings of Miss Jane Taylor, with a sketch of her life. By MRS. SARAH J. HALE, author of "Traits of American Life," "Ladies' Wreath," etc. New York: Harper & Brothers.

This excellent volume was prepared originally for the "Massachusetts School Library," a fact that would commend it to all who are acquainted with the high standing of the committee who controlled the introduction of every work introduced into the series, were not the reputation of Mrs. Hale so well known and highly appreciated for sound judgment, purity of taste and character, not only as an authoress, but as a woman, in all her varied relations. The selections are excellent, and the biography of Jane Taylor, by Mrs. Hale, though brief, is comprehensive and to the point.

- 9.—*The Public and Private History of the Popes of Rome, from the Earliest Period to the Present Time; including the history of Saints, Martyrs, Fathers of the Church, Religious Orders, Cardinals, Inquisitions, Schisms, and the Great Reformers.* By LOUIS MARIE DE CORMENIN. Translated from the French. Two volumes. Philadelphia: James M. Campbell.

This is a very remarkable work in many respects. It purports to come from the pen of a French Roman Catholic, and yet, while it records the virtues of many of the popes, it discloses the vices and crimes of others—a large majority of them to a degree, that is calculated, in some portions of the work, to excite disgust in the minds of most readers. The author of the work thus briefly prefaces it, which we shall quote, in order to give some idea of its spirit and design:—

"The history of the popes is an immense work, which embraces within its scope the political, moral, and religious revolutions of the world. It runs through a long series of ages, during which the bishops of Rome, whose mission was to announce to men a divine religion, have forgotten it in their pride of power, have outraged the morality of Christ, and become the scourge of the human race. Formerly, the thunders launched from the Vatican by sacreligious priests, overthrew kingdoms, and covered Europe, Asia, and Africa with butcheries, wars, and conflagrations. But the times are changed; religious passions are softened, philosophy has overthrown absolute thrones, and broken down the colossal power of the popes."

A brief analysis of these epochs precedes the author's history, and offers a frightful picture of monstrous debaucheries, bloody wars, memorable revolutions, etc., which prepares, by its wonderful recital, for the long succession of pontiffs and kings celebrated for their crimes, or illustrious for their exploits. The strong republican feelings of the author, although a Catholic, may have biased his opinion in regard to the character of popedom; but, on the other hand, they led him to watch with a close and critical eye, all movements having a tendency to the concentration of power, either in Church or State, in the hands of a single individual. The translator was evidently qualified for his task, and has doubtless retained the spirit and intent of the author. The two volumes cover more than nine hundred large octavo pages, and the work is splendidly illustrated with colored plates, which will compare well with the original French, of which they are copies. It is, on the whole, a work well calculated to create a deep interest in the public mind, and must obtain a wide circulation.

- 10.—*History of the Revolt of the Netherlands, Trial and Execution of Counts Egmont and Horn, and the siege of Antwerp.* Translated from the German of FREDERICK SCHILLER. By the Rev. A. J. W. MORRISON. New York: Harper & Brothers' New Miscellany.

This work of Schiller was first published, we believe, at Weimar, in 1788, in the author's native German. How long it has been translated into our own, we have not the means at hand of knowing. This, however, is the first edition of the translation that has ever been produced in this country. The materials of the author were at the time it was written abundant, and the only difficulty he must have experienced, was to seize the truth from such unequal, partial, and often contradictory narratives, as it is quite natural to suppose existed. But the philosophy and genius of Schiller have lent a charm to the work that cannot fail of interesting a large class of the English admirers of German literature and history. To Schiller's mind, one of the most remarkable events which have rendered the 14th century among the brightest of the world's epochs, was the foundation of the freedom of the Netherlands. We are glad that the Harpers have introduced it into their admirable series—the New Miscellany—of which it forms the XX1st number.

- 11.—*Pictures of Early Life; or, Sketches of Youth.* By Mrs. EMMA C. EMBURY. New York: Harper & Brothers.

The design of these tales is to illustrate, in a simple and pleasing manner, some of the more important lessons of early education. The work has already passed through several editions, and those who are familiar with the author's talents in this department of literature, need not be told that she has accomplished successfully, so far as as it can be, her design. At least, it is a most agreeable selection of stories, that will be read with general satisfaction.

- 12.—*Legends and Stories of Ireland*. By Samuel Lover, Esq., R. H. A. First Series. Philadelphia: Carey & Hart.

A choice collection of the author's inimitable legends and stories, overflowing with genuine Irish wit and humor, and as free from indelicate innuendos and vulgarity as such writings can well be. Those who have read the "Handy Andy" of Lover, cannot abstain from the excitement offered to their risibilities in the present volume.

- 13.—*Hutton's Book of Nature Laid Open*. Revised and Corrected. By Rev. J. J. BLAKE, D. D., author of various works on general literature. New York: Harper & Brothers.

The design of this little work, which is very generally known, we suppose, is to lead the young mind to a contemplation of the works of the Creator. Dr. Blake has added a few questions at the foot of each page, which will render it an agreeable and instructive Sunday-school book.

- 14.—*Evenings at Home; or, the Juvenile Budget Opened*. By Dr. AIKIN and Mrs. BARBAULD. Revised Edition. New York: Harper & Brothers.

Fifteen London editions, and we know not how many American, would seem to indicate the great popularity of this work. That it is deserved, all who are acquainted with it will readily admit. Purer minds than Dr. Aikin and Mrs. Barbauld possessed, never attempted, that we are aware, to cater for the instruction and amusement of the young; and thousands grown to years of maturity, will bear testimony to the benign influence received through these pleasant and profitable pages. The present edition is beautifully illustrated with engravings after Harvey and Chapman, by that excellent artist, Adams.

- 15.—*The Book of Nursery Rhymes, Tales, and Fables*. A Gift for all Seasons. Edited by LAWRENCE LOVECHILD. Philadelphia: George B. Zieber.

This is a beautiful edition, consisting of most of the old ballads which afforded our grandfathers amusement in the days of their childhood; such for instance, as "Old Mother Hubbard and her Dog," and many others as well known and popular.

- 16.—*Alladin; or, the Wonderful Lamp*. A Gift for all Seasons. With fifteen exquisite illustrations on wood, engraved by Doughty, Gilbert, Gihon, Waitt, and Downes, from original designs by Darley. Edited by LAWRENCE LOVECHILD. Philadelphia: George B. Zieber.

This popular eastern tale, or romance, designed for the amusement of children, is reproduced in an elegant and captivating style, with highly colored illustrative engravings. It has ever been a favorite with "little folks," and the beautiful form of the present volume will enhance its value to them.

- 17.—*Elegy Written in a Country Churchyard*. By THOMAS GRAY. With thirty-six illustrations, engraved on wood by S. Gilbert. Philadelphia: John W. Moore.

Gray's Elegy, which has ever been considered a perfect gem in English poetical literature, like Shakespeare and the Bible, is above criticism; and therefore, our only object at this time, is to notice the present as a most beautifully printed, bound, and illustrated edition of it. Each page occupies but one verse of the poem, which has an appropriate illustrated engraving. Indeed, so graphic are the descriptions in every line of the poem, that it would be strange if the ingenious artist did not catch the movement of the poet's mind, which, aside from the thoughts that impressed it at the time, was so perfectly alive to the most artistic conception of composition.

- 18.—*The Treatment of Insanity*. By JOHN M. GALT, M. D., Superintendent and Physician of the Eastern Lunatic Asylum of Virginia, at Williamsburg. New York: Harper & Brothers.

We have, in this volume of nearly six hundred pages, a very elaborate and able treatise on insanity. Dr. Galt seems to have embodied in his work a vast amount of matter on the subject, gathered not only from his own experience in this particular department of practice, but from the labors of the most eminent and popular writers at home and abroad. It is designed for the profession, but contains much that will interest the intelligent reader.

- 19.—*American Historical and Literary Curiosities*; consisting of fac-similes of original documents relating to the events of the Revolution, etc., etc. With a variety of relics, antiquities, and modern autographs. Collected and edited by J. JAY SMITH, librarian of the Philadelphia and Logamian libraries, and JOHN F. WATSON, Annalist of Philadelphia and New York, assisted by the Association of American Antiquarians. Philadelphia: Carey & Hart. New York: Wiley & Putnam.

The design of this handsomely executed book, is indicated in the title-page quoted. It embodies numerous autograph letters of General Washington, William Penn, John Adams, Benjamin Franklin, Lafayette, Mrs. Martha Washington, Kosciusko, George Whitfield, etc., besides modern autographs and many printed literary curiosities of the past. The work is to be continued in numbers, and will, when completed, contain much that will interest, not only the antiquarian, but all who are curious in such matters, or delight in recalling the reminiscences of the past. It is well remarked by the editor, that "the past has a charm for Americans, as well as for the inhabitants of countries whose history goes far into the shadowy and unknown; our early and romantic past has the merit of being known and truly related; everything which adds to these truths, is sought for with avidity by the curious." It is with such views that the present work has been prepared and published.

- 20.—*Songs and Ballads*, By SAMUEL LOVER. Including those sang in his "Irish Evenings," and hitherto unpublished. Third edition, with additions and corrections by the author. New York: Wiley & Putnam.

The deserved popularity of the present collection of these "Songs and Ballads" in America, will secure for the present edition an extensive demand. "A reprint," says Mr. Lover in his preface to this edition, "of a London edition of my *Songs and Ballads*, has lately been published in this country, deficient of the songs of 'Handy Andy' and 'Treasure Trove,' and but very few from my 'Irish Evenings.' This present edition contains all those I have enumerated, besides all the songs of my 'Irish Evenings,' many of which are here published for the first time. In fact, the present edition is the only perfect one in existence, being much more ample than any collection of my songs published, even in Europe, and the only authentic copy of my poetical works in this country, it having gone through typographical corrections under my own hand."

- 21.—*Herdsmen and Tillers of the Ground*; or, Illustrations of Early Civilization. By MRS. PERCY LINNETT. New York: Wiley & Putnam.

The present volume, with one which preceded it, is intended as a part of a descriptive history of the progress of civilization as far as it can be made interesting to juvenile readers; and a series of sketches of the life of races existing at present in various stages of advancement. The subjects included in this volume, are the Nomadic Herdsmen of Silena, the "Pastoral Tribes of the Asiatic Land, the Mountaineers of Caucasus, Kalmucks and Krughts, or Cossacks of Independent Tartary, etc. It is amusing and instructive, and the highly colored engravings, illustrative of the subjects, are spirited and life-like.

- 22.—*Glimpses of the Wonderful*. New York. Wiley & Putnam.

This is a beautiful annual, designed for children and youth. The wonders of nature and art are contained in a happy and attractive form. Amusement is here rendered subservient to information that is well calculated to enlarge the intellect of the young mind. The several "Wonders" are illustrated with well-executed cuts.

- 23.—*The Modern Standard Drama*; A collection of the most popular acting plays, with critical remarks; also, the Business of the Stage, Costumes, etc. Edited by EPES SARGENT, author of "Velasco, a Tragedy," etc. Vol. III. New York; William Taylor & Co.

The third volume of this collection of popular plays, just completed, includes—The Poor Gentleman, Hamlet, Charles II., Venice Preserved, Pizarro, The Love Chase, Othello, Lend Me Five Shillings. The volume also contains a brief memoir of Mr. William Burton, and a portrait of that gentleman in Dr. Ollapod, in the comedy of "The Poor Gentleman."

- 24.—*The Roman Traitor ; a True Tale of the Republic. A Historical Romance.* By HENRY WILLIAM HERBERT, author of "Marmaduke Wyvil," "Cromwell," "The Brothers." New York: William Taylor & Co.

This is the first attempt of the author, as we are informed, in classical fiction, and he has chosen the conspiracy of Catiline as a theme particularly adapted for the purpose, and as being, moreover, an actual event of vast importance, in many respects unparalleled. Mr. Herbert, it would seem, to the history of the strange events related in this tale, has scrupulously adhered; and the dates, facts, and character of the individuals introduced, we are assured, will not be found in any material respect erroneous or untrue.

- 25.—*The Complete Poetical Works of Thomas Campbell ; with a Memoir of his Life, and an Essay on his genius and writings.* Illustrated with fine steel engravings. New York: D. Appleton & Co.

It would be a work of supererogation on our part, to speak of the poems or power of Campbell. There are few but what admire his subdued enthusiasm; and it has been, we believe very truly said of him, that he is *par excellence* the poet of the fair sex. There are, perhaps, no works more relished by cultivated females. But our chief object is to notice the present edition, which appears in uniform style with the publisher's standard poets, some ten or dozen volumes of which have already appeared. In some respects it is handsomer—the type is larger, and the illustrations, many of them, better.

- 26.—*Sailors' Life and Sailors' Yarns.* By Captain RINGBOLT. New York: Charles S. Frances.

A portion of the contents of this volume was originally published in the Boston Journal; written, as the author says, for his own amusement in leisure hours at sea. The "Yarns," as they are termed, we have the assurance, are founded upon fact; and some are strictly true, with the exception of the names of persons. These sketches of a sailor's life, and narratives of incidents at sea, are written in an agreeable vein; and the sentiments which many of them contain cannot fail to commend themselves to sailors, and to those interested in the sailor's welfare. We commend it to all who "go down to the sea in ships, or do business upon the great deep," either in the capacity of seamen or passengers, as alike interesting and instructive.

- 27.—*Flowers for Children.* By L. MARIA CHILD, author of "Mother's Book," "New York Letters," etc. III. For children of eleven and twelve years of age. New York: C. S. Francis & Co.

This little volume, one of an admirable series, consists of tales, poems, and sketches adapted to the tastes of children; written in that pure and loving spirit so characteristic of everything from the author's pen—all in her happiest and best vein. To those who know the author, the announcement is enough; and to those who do not, we can only heartily commend whatever she writes—sure that we run no risk in doing so.

- 28.—*Greenwood Illustrated, in a series of Picturesque and Monumental Views, in highly finished line engravings, from drawings taken on the spot.* By JAMES SMILLIE. The descriptive notices by N. CLEVELAND. Part III. New York: R. Martin.

We spoke in terms of high commendation of the two previous parts. The present is equal in all respects. It contains a correct map of Greenwood, surrounded by four beautiful views of Lorn Girt Hill, Ocean Hill, the Monument to Wm. A. Lawrence, Arbor Water, and the Receiving Tomb. There are, besides, a view of the Tour Fern Hill, and another of Ocean Hill.

- 29.—*Julia Ormond ; or, the New Settlement.* By the authoress of "The Two Schools." New York: Edward Dunigan.

This tasty volume forms the seventh of "Dunigan's Home Library," a series of tales of a social, moral, and religious tendency, designed chiefly for Catholic families. The beautiful style in which they are published, as well as their literary merit, will render them attractive to many who do not belong to the church.

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